

County Borough



of Wolverhampton

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# REPORT

UPON THE

## Health of Wolverhampton

FOR THE YEAR 1903,

[BY

HENRY MALET, B.A., M.D., B.Ch.

Medical Officer of Health.

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# MEDICAL OFFICER'S REPORT,

1903.

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## PREVALENCE AND PREVENTION OF INFECTIOUS DISEASE.

Table 2 gives the weekly numbers of cases of certain diseases certified by Medical Men under the Infectious Diseases Notification Act. The crosses represent the degree to which the disease heading those columns prevailed—these are only rough approximations. Any certificate detected as erroneous before the close of the week is not entered.

Table 1 gives the total number of cases about which enquiries were made and which were recorded ; no erroneous cases are entered in this Table.

*Small Pox.*—A case of Small Pox had died in the Borough Hospital on January 3rd, the last day of the statistical year, 1902, this death being registered in the week following appears in our death returns this year. On the same day another case of Small Pox was admitted to the Borough Hospital, and remained in until February 24th. Our first case this year was on February 3rd, when an unvaccinated child, 6 years of age was found to have Small Pox in a Common Lodging House ; the source of infection was not discovered, but she had been about the country with her mother. In this lodging house there were 47 other inmates ; one had already had Small Pox many years ago ; two had been vaccinated in infancy, and re-vaccinated recently ; thirty-five had been vaccinated in infancy only ; nine were unvaccinated. One of those only vaccinated in infancy (a man aged 40 years, and therefore but little protected) was already ailing with Small Pox before preventive measures could be taken.

Of the others, by the offer of a small premium, the following vaccinations were obtained; of the nine unvaccinated eight were vaccinated, one a lad aged 16 years brother of the sick child absented himself and so could not be done; of the thirty-five vaccinated in infancy only, all were re-vaccinated except the man already ailing. The little girl first attacked, and the man subsequently ill were removed to the Borough Hospital. The only other case we had was the unvaccinated lad who had eluded vaccination, and on finding himself ill on February 19th returned and was removed to the Borough Hospital. Considering the extremely unfavourable circumstances under which the initial case occurred, without the least attempt at or chance of any separation from the other lodgers, the above result is very striking. On February 4th a case was detected in the Tramp Ward at the Workhouse and removed to the Borough Hospital. On April 21st a case was reported from another lodging house. It was a woman, who with her husband had only been here a few days. It subsequently transpired that fourteen days previously in another town they had slept in a bed which had been occupied by an unrecognized case of Small Pox the previous night; when this was found out the couple had left that town and they could not be traced. The husband had been re-vaccinated a year ago, he had the same exposure as his wife, and he slept with her up to the day of her removal to Hospital, when the rash was well out on her, and did not take Small Pox. There were 18 other inmates of the lodging house; 3 had previously had Small Pox, 7 had been previously re-vaccinated, none were unvaccinated. 7 were now re-vaccinated; one of these had previously had Small Pox and two had been previously re-vaccinated. We had no extension.

We remained free until July 28th, when a case was reported in the East; it was a youth who had been residing and employed at a house where ice cream was manufactured, in the West; he had been ill since the 24th, and only came on the 27th to his home in the East. He had been selling ice cream at the Floral Fete on July 9th, and it seemed most probable that he had contracted infection then. He had been selling ices in public since he had been taken ill. He was at once removed to Hospital. There were six persons at his home, all vaccinated in infancy, all were re-vaccinated on 29th July. At his previous residence, where he had slept



two nights since his illness began, there were 15 persons over sixteen years of age, all vaccinated in infancy except one, who was unvaccinated, and 3 children under 4 years, all vaccinated in infancy. The unvaccinated person was vaccinated on July 29th, the others all declined to be re-vaccinated in spite of urgent appeals. On August 11th, another youth, one of those who had declined re-vaccination, was taken ill, and at once sent from the place to the workhouse in an ice barrow. On August 14th he was found to have Small Pox, and removed to the Borough Hospital. There was great difficulty in effectually disinfecting the premises and materials at the place he had come from, it was found necessary to destroy everything there in preparation for food.

The following are the particulars as regards vaccination and illness :—

Number and Initials.	Sex and Age.	Vaccination.	Illness.
1. W.M.	F. 6	Unvaccinated	Rather severe confluent case, severe boils. 62 days in Hospital
2. J.W.	M. 55	Infancy. 2 marks. Total area $\frac{5}{8}$ sq. inch	Mild discrete case, delayed by superficial ulceration of legs. 54 days in Hospital
3. M.L.	M. 40	Infancy. 3 marks, right arm. Total area $\frac{5}{8}$ sq. inch. Some obscure marks on left arm denies re-vaccination, but is not intelligent	Very mild case, a few scattered pocks. 37 days in Hospital.
4. M.M.	M. 16	Unvaccinated	Severe onset, but mild case, copious discrete rash. 45 days in Hospital
5. K.S.	F. 32	Infancy. 5 marks. Total area $1\frac{1}{4}$ sq. inch.	Rather severe onset, but very mild case, scattered pocks. 32 days in Hospital
6. J.W.H.	M. 18	Infancy.	Very mild case, a few scattered pocks. 17 days in Hospital.
7. C.C.	M. 21	Infancy.	Mild case, a few scattered pocks. 21 days in Hospital.

Three primary cases occurred in houses in the borough amongst other residents, there were in these houses 90 such residents, their condition as regards vaccination and subsequent attack is shown below :—

Total.		Previously had Small Pox.	Re-vaccinated.	Vaccinated in Infancy only.	Unvaccinated
Persons	90	4	10	66	10
Took Small Pox	3	—	—	2 Aged 40 years and 21 years	1 Aged 16 years

*Measles.*—The quarterly cases of, and deaths registered as due to Measles since 1884 are as follows :—

Cases	272	1884				4	1885				21	1886			
		710	143	2			2	—	17			9	189	959	
Deaths	11	66	20	1		1	—	—	—		—	—	8	103	
Cases	124	1887				119	1888				150	1889			
		17	31	22			149	166	435			228	78	141	
Deaths	19	4	7	1		9	6	5	19		10	11	11	8	
Cases	68	1890				73	1891				501	1892			
		45	139	230			4	11	275			415	82	33	
Deaths	3	10	5	14		5	—	—	20		21	16	3	1	
Cases	21	1893				530	1894				2	1895			
		18	106	248			294	15	4			83	215	549	
Deaths	6	—	5	10		46	27	—	—		—	—	7	33	
Cases	159	1896				83	1897				98	1898			
		69	36	45			218	249	400			64	19	3	
Deaths	6	—	1	1		3	11	16	19		4	10	5	—	
Cases	3	1899				974	1900				310	1901			
		1	3	55			549	84	198			541	134	195	
Deaths	1	—	1	—		38	32	2	4		16	15	10	7	
Cases	162	1902				323	1903								
		131	7	39			310	86	82						
Deaths	7	7	1	6		14	32	7	3						

We have no definite system of reporting Measles, and the great majority of our cases are seen by no doctor, hence there is some uncertainty about our cases, and the recorded numbers are only rough approximations. Our only definite source of information is from the reports of absentees sent by the teachers in the various public schools, which are inquired into by our own Inspectors; these reports are frequently irregular unless some school attendance is seriously affected.

During the first quarter there was almost an epidemic of Measles in the West Sub-district, and apparently there were many cases amongst the well-to-do classes unheard of by us. This is shown by the high proportion of deaths 13, to cases 283; in the East there were 40 cases and 1 death. In the second quarter we had the same number of deaths in the West, and only 173 cases heard of; there was a greatly increased prevalence in the East, with heavy fatality, 167 cases and 20 deaths. It is evident that not one fourth of the actual cases occurring can have been heard of by us in either Sub-district. In the third quarter there was apparently a rapid falling off of the cases in the West, which continued to the close of the year; no deaths were registered after July. In the East also there was considerable remission from after July, but there was a rather localized outbreak during the latter half of the fourth quarter; chiefly affecting the area lying between the Green Lane and Bilston Road.

*Scarlet Fever.*—We began recording our cases in 1884, but as we have only had notification since 1890 (inclusive) the returns before that year are less complete than those since. The death records in my possession go back to 1870; the following are the deaths since that year, and the known cases since 1884:—

	1870	1871	1872	1873	1874	1875	1876
Deaths	54	26	69	121	34	26	58
	1877	1878	1879	1880	1881	1882	1883
Deaths	226	40	17	39	64	27	24
	1884	1885	1886	1887	1888	1889	1890
Deaths	37	46	5	16	17	6	13
Cases	212	244	47	168	194	124	500
	1891	1892	1893	1894	1895	1896	1897
Deaths	14	3	25	55	34	21	24
Cases	419	242	623	1096	592	372	529
	1898	1899	1900	1901	1902	1903	
Deaths	20	6	9	10	15	14	
Cases	359	177	242	408	549	550	

The fatality varies in different periods so that the deaths bear little ratio to the cases. During the present year the prevalence has been moderate and the mortality low; both being almost the same as last year.



The following Table gives quarterly particulars as to the cases in the two Sub-districts. The cases in the General Hospital were not sent in by us. The deaths are those of the cases reported in each quarter, and sometimes occur later; excepting Table No. 2. they do not correspond to the deaths in the Mortality Tables, which are those registered in each quarter:—

				Quarters	1st	2nd	3rd	4th	Year
EAST	..	{	Total	Cases ..	23	63	70	81	237
			Deaths ..	..	2	3	3	8	
		{	Borough Hospital	Cases ..	21	56	62	66	205
				Deaths ..	..	2	3	1	6
		{	General Hospital	Cases ..	..	..	..	1	1
				Deaths ..	..	..	..	..	..
		{	At Home	Cases ..	2	7	8	14	31
				Deaths ..	..	..	..	2	2
WEST	..	{	Total	Cases ..	68	72	89	84	313
				Deaths ..	1	3	..	2	6
		{	Borough Hospital	Cases ..	44	56	71	65	236
				Deaths ..	..	3	..	2	5
		{	General Hospital	Cases ..	..	1	..	..	1
				Deaths ..	..	..	..	..	..
		{	At Home	Cases ..	24	15	18	19	76
				Deaths ..	1	..	..	..	1

The mortality per cent. of the cases treated at home is 2·8, that of those treated in the Borough Hospital is 2·5 nearly.

There has been a serious prevalence of Scarlet Fever in the fourth quarter, 1902, but at the close of the year this greatly diminished; this reduction continued through the first quarter of the present year. In the East only 28 cases were reported, in the West 68. In the second quarter,



at the end of April, there was a considerable increase, mostly in the East; this increased prevalence was practically maintained throughout the year. We had, especially in the East, an exceptional number of secondary cases, due usually to a first case being overlooked until the second occurred.

On account of the larger size of many of the houses in the West a greater number of cases in this Sub-district have fair facility for home isolation; hence the greater proportion of cases so treated there. The following table gives the proportion of cases kept at home in the Sub-districts since 1884. I give the total deaths registered also, because the cases were imperfectly reported before 1890. Column 'R' is the rate of the total cases per 10,000 of population.

	EAST.				WEST.			
	Total Deaths.	Cases.	R.	Cases at home	Total Deaths.	Cases.	R.	Cases at home
1884	28	140	36.1	?	9	72	18.4	?
1885	37	146	37.6	78	9	98	24.6	70
1886	2	19	4.9	4	3	28	6.9	19
1887	5	52	13.4	25	11	116	28.2	82
1888	5	53	13.5	27	12	141	33.8	56
1889	0	45	11.5	16	5	79	18.6	29
1890	5	239	61.3	61	8	261	60.6	100
1891	7	154	39.4	28	7	265	60.4	74
1892	2	76	19.4	19	1	166	37.1	50
1893	17	301	76.6	20	8	322	70.4	47
1894	39	600	152.1	53	16	496	106.1	104
1895	16	234	59.2	28	18	358	75.0	98
1896	10	155	39.1	20	11	217	44.5	55
1897	11	219	55.0	37	15	310	62.3	77
1898	5	124	31.1	12	15	235	46.2	57
1899	4	52	13.0	6	2	125	24.1	33
1900	3	93	23.1	5	6	149	28.1	51
1901	5	131	32.5	21	5	277	51.1	75
1902	7	139	46.7	13	8	360	65.0	102
1903	8	237	58.3	31	6	313	55.3	76

These figures are very remarkable; the greater child population of the East, and the far greater facilities which its larger proportion of poor and crowded areas afford for the spread of infection, would lead one to suppose that Scarlet Fever would be much more prevalent there than in the West. This was the case in 1884-5, and 1894. In 1884-5 there was very little Hospital isolation. (I have not been able to get the figures for the Sub-districts separately prior to this). Then followed a long period of peculiarly low prevalence of Scarlet Fever; during which we were increasing the amount of our Hospital isolation, until in the East it became fairly complete. During 1893 the prevalence became very heavy, and judging by the deaths, the prevalence in the East was more than in the West, although the reported cases were more in the latter. Probably the mortality was actually greater amongst the feebler children in the East, but most likely, too, a number of mild cases were overlooked in that Sub-district, and thus the proportion of cases unisolated would be much greater than appears from the Table. Next year, 1894, we find a very heavy prevalence of Scarlet Fever, the East far exceeding the West both in number of cases and mortality. Since this the prevalence has again declined, but much more in the East, which has had fewer cases than the West each year since. Owing to the rapidly increasing difference in the populations of the two Sub-districts, the mere number of cases does not give a correct comparison of late years; the case rate is probably more correct; but, as Scarlet Fever mainly affects young children, the case rate per the whole population is not at all exact; judging by the comparative birth-rates, and the known nature of the two populations, there is a relatively larger child population in the East, so that, even in the present year, the real comparative prevalence has been less there than in the West.

These facts apparently indicate that in spite of the greater facilities which exist for the extension of Scarlet Fever in the East, the fairly complete Hospital isolation attained there renders that Sub-district during ordinary years less affected than the West; but this protection fails when a more epidemic prevalence exposes the poorer and more crowded Sub-district to the danger of overlooked cases spreading infection; at a time, too, when the unknown epidemic conditions which favour infection are present. At the same time, it is not improbable that the normal

prevalence of Scarlet Fever may, in consequence of some conditions at present unknown be really greater in the West than in the East.

Last year we had an exceptional number of cases of ignorance and negligence; this year the same thing has been found even in a greater degree. These cases illustrate in the first place how uncertain the infection of Scarlet Fever seems at times to be, and next, what numerous unknown sources of infection must continue to exist while the minor cases are overlooked and neglected as they are. While our own knowledge of the degree, nature, and duration, of the infection remains defective, and while milder cases of the disease are overlooked or disregarded by many of the public, any preventive measures can only have a very partial effect in checking the spread of the disease. The following are a few typical cases from those referred to. A child ill, April 30th, no notice taken; two others April 30th, still no notice; two others May 6th, these being severe attracted attention, and the cases were removed, only one child remained unattacked in the house. Two children ill May 1st, no notice taken, two more May 7th, another May 8th; then attended to and removed; five other children here. A child ill April 10th, another on the 24th, another on May 4th, another May 15th, only then notice taken and cases removed; one other child here. A child ill April 9th, kept from school for a few days, then returned to school; another child on May 17th, another May 20th; then the first case was found peeling, and all were removed; two other children here. Two children were taken ill on September 27th, another on October 6th, the absence from school of one of the first cases was reported, and the first two were found peeling and the third ill; large quantities of milk were sold from this house; cases were removed; there were two other children here. Family of three children were at the seaside, one child was taken ill, nature of illness overlooked; seventeen days after all returned home, the next day the other two children were taken ill, and the first case was then found to be peeling.

The following is the summary of the apparent effects of removal and home care on the spread of the infection in the households attacked during the year. No account is taken of houses where there is no susceptible child after the first case attacked; children who have already had Scarlet Fever being counted as insusceptible:—



EAST SUB-DISTRICT.—During the year there were 92 instances in which no second case occurred after the removal to the Hospital of first cases. In these 92 houses there remained 260 children who had not previously had Scarlet Fever.

In 23 instances secondary cases occurred without Hospital removal, there were 34 such cases; they occurred at the following intervals after the previous case was taken ill:—one day, 2 cases; two days, 2 cases; three days, 6 cases; four days, 2 cases; five days, 1 case; six days, 5 cases; seven days, 3 cases; eight days, 3 cases; nine days, 2 cases; ten days, 3 cases; fourteen days, 1 case; and one case each at sixteen, twenty, thirty-five, and thirty-eight days.

In most of these Hospital removal was ultimately effected, and in twelve instances where 29 susceptible children still remained there was no further recurrence.

Thus in 104 instances there was no further case after Hospital removal, though 289 children remained in these houses.

In 12 instances further cases occurred *after* Hospital removal, there were 14 such cases at the following intervals after the previous removal:—One day, 4 cases; two days, 2 cases; three days, 1 case; four days, 3 cases; seven, nine, thirteen, and nineteen days, 1 case each. In these houses 29 children still remained unaffected, so that in all 318 children escaped infection after Hospital removal.

In the East cases were isolated at home in 26 houses. In most of these there were either no other children, or the other children were sent away. In eleven instances other children remained in the house, in five of these, 5 secondary cases occurred, at the following intervals after the primary attack; seven days, 2 cases; four, eight, and thirty-five days, 1 case each. There remained in these eleven houses 16 children unattacked.

WEST SUB-DISTRICT.—There were 111 instances in which the first cases of Scarlet Fever were removed, and no others occurred. In these 111 houses there remained 252 susceptible children.



In 22 instances secondary cases occurred without hospital removal ; there were 27 such cases ; they occurred at the following intervals after the preceding case had been taken ill :—One day, 3 cases ; two days, 9 cases ; three days, 6 cases ; four days, 1 case ; six days, 1 case ; seven days, 2 cases ; nine, thirteen and fifteen days, 1 case each ; eighteen days, 2 cases.

In most of these houses hospital removal was ultimately effected. In thirteen instances where there were susceptible children there was no further recurrence, 27 children escaping.

Thus, in 124 houses there was no recurrence after hospital removal, 279 children escaping.

In fifteen houses cases occurred after hospital removal, 18 cases occurring at the following intervals after the previous removal :—One day, 5 cases ; three days, 2 cases ; four days, 3 cases ; five, six, eight, seventeen, twenty-six, twenty-nine, thirty-five, and thirty-nine days, 1 case each. In these houses 34 children still remained unaffected ; so that in all 313 children escaped infection after hospital removal.

In the West cases were treated at home in 64 houses during the year. In one instance the child died the day it was reported. In 34 instances there were no other susceptible children in the house after the primary cases were taken ill. In four of these cases the mother, who was nursing, was taken ill, at four, nine, twenty, and thirty-two days intervals after the children ; in three of these instances both mother and child were then removed to the Borough Hospital. In 8 instances all other susceptible children were at once sent away. In 21 houses cases were treated where other susceptible children were kept at home ; there were 43 such children in these houses. In only 5 houses fresh cases occurred, 7 children being taken ill at the following periods after the preceding attack ; one day, 2 cases ; two, five, and twelve days, 1 case each ; eighteen days, 2 cases. These are the best records we have ever had of the results of home treatment ; they are mainly due to the exceptional opportunities for isolation in the sixteen houses where there was no recurrence. In seven of these houses there was only one other child, three of these houses were nine-roomed ; one, seven ; two, six ; and one, four-roomed. In six of these

houses there were two other children ; one of these had fifteen rooms ; one, ten ; one, nine ; one, seven ; and two, six rooms each. There were three other houses ; one with four children, had ten rooms ; one with five children had nine rooms ; and one with six children had twelve rooms. In one instance where three children in a house had the fever they were out (having been pronounced free from infection, and disinfection done) and a young girl who then attended on them took Scarlet Fever. In one instance the only other child in the house was sent away, was brought back when infection was supposed to be over, and took Scarlet Fever 61 days after the primary case first had it. In another instance the same thing occurred at 123 days interval between the two onsets ; but this was probably independent infection. In two instances visiting from houses where cases were being treated at home apparently carried infection.

The summary for the Borough is as follows :—Hospital removal was effected in 255 houses. After the first removals there remained in these houses 663 children. In 228 of these houses there was no recurrence after removal, 568 children escaping. In 27 houses there was recurrence, 32 children being attacked. In these twenty-seven houses 63 children still escaped, after final hospital removals. Of the 32 secondary cases 14 were ill within three days of the previous removal, and probably infected before it ; 4 were more than three weeks after the removal, and probably due to independent infection. This leaves only 14 cases, 6 of which were ill four days after the previous removal, and may have been infected before.

Cases were treated at home with reasonable facility for isolation in 32 houses, where there were 64 children besides the primary cases. Secondary cases occurred in 10 of these houses, 12 occurring. Four of these cases were ill within four days of the primary attack, and therefore probably infected before any care was taken. Thus, 8 cases were probably due to failure.

The following tabular statement shows the results at a glance :—

	Hospital Removal.	Home Isolation.
Total houses .. ..	255	32
Case recurred in .. ..	27	10
Number of children after primary cases ..	663	64
Number subsequently attacked ..	32, or 4·8 %	12, or 18·7 %
Number possibly due to failure ..	14, or 2·1 %	8, or 12·5 %
Number of children escaping ..	631, or 95·2 %	52, or 81·3 %

The following is the total for the ten years, 1894-1903 :—

	Hospital.	Home.
Total houses .. ..	2,276	293
Cases recurred in .. ..	229	113
Number of children after primary cases ..	6,230	582
Number of these attacked ..	292, or 4·7 %	158, or 27·1 %
Number possibly due to failure ..	137, or 2·2 %	107, or 18·4 %
Number of children escaping ..	5,938, or 95·3 %	424, or 72·9 %

The cases treated at home were, of course, in roomy houses, where isolation was possible; those removed to the hospital include a great majority from small and comparatively crowded houses; thus, the evidently greater protection afforded the latter is very striking. There is, however, one correction which should be made in estimating the amount of protection which hospital removal affords the children left in the houses. In some instances, after the return home of a hospital case fresh cases occur. We have been particularly unfortunate in the number of these cases during the last two years; this year we had 27 such cases, the particulars of which are given later, after the Hospital report. If these are added to our 14 failures they make 41 such, or 6·2 per cent. of children attacked in houses after Hospital isolation, and apparently due to failure; less than half the 12·5 per cent. in the home cases. During the ten years we have had 187 return cases, added to the above 137 cases due to failure these give 324, or 5·2 per cent. of total failure; this is far below the 18·4 per cent. in home cases. But it is very mortifying to find that these return cases after all the care of prolonged Hospital isolation far exceed the cases of failure after removal. The reduction of these return cases is the most important problem in connection with Hospital isolation.

*Diphtheria.*—The quarterly cases of, and deaths from, Diphtheria in the borough since 1890 have been :—

	1890				1891				1892			
Cases ..	11	3	4	5	8	8	6	11	1	7	4	4
Deaths..	3	—	—	1	1	2	1	1	—	3	1	—
	1893				1894				1895			
Cases ..	7	5	12	11	11	16	33	22	34	78	56	140
Deaths..	—	1	1	3	5	8	10	10	19	24	14	27
	1896				1897				1898			
Cases ..	108	101	87	64	73	72	75	91	61	25	64	52
Deaths..	19	15	9	12	11	10	11	26	19	5	11	8
	1899				1900				1901			
Cases ..	29	20	29	27	24	15	32	24	24	21	22	39
Deaths..	5	4	5	7	3	3	4	—	2	2	3	6
	1902				1903							
Cases ..	15	33	21	22	6	13	13	14				
Deaths..	3	6	3	6	2	4	1	3				



The annual cases and deaths in the Sub-districts have been :—

		1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
EAST	{ Cases	11	8	3	14	36	88	114	121	76	37
	{ Deaths	2	1	2	2	20	29	21	21	18	12
WEST	{ Cases	12	25	13	21	46	220	246	190	126	63
	{ Deaths	2	4	2	3	13	55	84	37	25	9
		1900	1901	1902	1903						
EAST	{ Cases	35	30	36	9						
	{ Deaths	4	7	12	2						
WEST	{ Cases	60	76	55	37						
	{ Deaths	6	6	6	8						

The returns both of cases and deaths this year are very low, but the mortality per case is very high ; the returns of cases are very unreliable, many cases being quite overlooked, and some reported cases being uncertain.

EAST. The apparent freedom of the East Sub-district, which is confirmed by the low death return, is most remarkable. During the first quarter two cases were reported, neither of them certain. We had no known case in the second quarter. In the third quarter four cases were reported, two were uncertain, two were taken to the General Hospital, one of these (23 months old) died the day of admission. In the fourth quarter four cases were reported ; two were in one house ; another case came here ill. One case (2 years old) was taken to the General Hospital and died the day of admission.

WEST. During the first quarter we had four cases ; two were fatal ; one (6 months old) was first heard of in the death returns. During the second quarter we had thirteen cases ; four were fatal ; one of these (8 years old) was first heard of in the death returns. In the third quarter we had ten cases ; two were taken to the General Hospital ; none were fatal. In the fourth quarter we had ten cases, two were in one house ; two were fatal (ages  $2\frac{1}{2}$  years, and 14 months).

During the year we had only two cases confirmed by bacteriological examination. It is noteworthy that cases taken to the Hospital are frequently done so, on account of urgent symptoms, of six cases taken there during the year two died within a few hours of admission. This makes the hospital mortality unduly high.



*Enteric Fever.*—The cases and deaths since 1890 have been :—

		1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
EAST	{ Cases	22	34	22	53	27	78	89	51	76	115
	{ Deaths	6	5	6	7	10	10	24	9	13	23
WEST	{ Cases	22	64	53	83	54	56	49	45	41	79
	{ Deaths	3	11	9	16	7	8	13	12	7	21
BORO'	{ Cases	44	98	75	136	81	134	138	96	117	194
	{ Deaths	9	16	15	23	17	18	37	21	20	44
		1900.	1901.	1902.	1903.						
EAST	{ Cases	106	50	49	36						
	{ Deaths	22	7	12	10						
WEST	{ Cases	89	39	44	35						
	{ Deaths	17	10	3	6						
BORO'	{ Cases	195	89	93	71						
	{ Deaths	39	17	15	16						

The case returns this year are very low, the mortality is high, in the East very high.

The quarterly returns of cases were:—

EAST	.. {	Cases	..	11	14	5	6
		Fatal	..	1	4	1	2
WEST	.. {	Cases	..	16	3	7	9
		Fatal	..	0	1	2	3

The quarterly deaths registered do not tally with the above numbers of fatal cases, as some of the deaths occurred after the close of the quarter during which the case was reported.

EAST. In the first quarter only eleven cases were reported. Only one case was fatal, unhappily that of a hospital nurse, who had been nursing cases of Enteric Fever. In four other cases there were fair grounds for suspecting direct infection. Seven cases in all were treated in the General Hospital. In the second quarter only fourteen cases were reported, but four of these were fatal; eleven were in the General Hospital, and one in the Workhouse. Two cases were from one house. The third quarter's returns are most extraordinary, five cases reported, one in the Workhouse (fatal) three cases in the General Hospital, these cases were from one house, their mother had brought foul linen from the house where there had been two cases last quarter, to wash it at her home. Only six cases were heard of in the fourth quarter, two were fatal, only one case (fatal) was treated in the General Hospital. During the year admission orders to the General Hospital were given for eight cases.

WEST. During the first quarter sixteen cases were reported, none fatal. Nine were in the General Hospital. Two cases were in one house and the first of these frequented another house where there was a case. Another case was a servant at a house where a case of Enteric Fever from last quarter was under treatment. In the second quarter we had only three cases, one fatal. In the third quarter we had seven cases, two fatal. One case was in the General Hospital, she had been in contact with the fatal case last quarter. In the fourth quarter we had nine cases, three of which proved fatal (one death was on January 25th, 1904). Five cases were in the General Hospital. During the year admission orders to the General Hospital were given for thirteen cases.

The Borough was particularly free from other Zymotic diseases during the year. We had a sharp prevalence of Influenza during January, and again in December, causing many deaths; and at the same time Pneumonia was prevalent and fatal. Influenza was apparently present in a slight degree throughout the whole year in the West Sub-district.

*Diarrhœa*.—The annual deaths returned as due to Diarrhœa since 1875 have been :—

1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.		
96	105	59	93	48	111	46	87	56		
1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.		
140	50	149	105	60	84	68	105	55		
1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
161	62	135	131	188	174	132	117	109	72	86

With the exception of the years 1875-6 and 1886-7 there were regular alterations of high and low returns up to 1895, since when the returns have been high until the last two years.

Inasmuch as deaths from the same disease are also registered under several other terms (especially Enteritis, or Gastro-enteric-Catarrh) the Diarrhœa returns by themselves do not give an accurate idea of the prevalence of this epidemic. In table No. 5 all such deaths are classified together under the heading Diarrhœal Diseases, and this return is the most instructive to consider. This return includes deaths due to ordinary bowel complaints, other than the special zymotic disease; it is practically

impossible to exclude these other deaths. In the last three years there was an exceptional number of occasional deaths from Diarrhœa registered all through the year, especially in the East Sub-district, rendering it difficult to say when the epidemic disease commenced. This year for instance six deaths were registered in the week ending May 30th, then only occasional deaths until the week ending August 8th; when the deaths began to occur regularly. It has been fairly well established that the prevalence of Zymotic Diarrhœa is in proportion to the temperature, and especially to the ground temperature. It is noteworthy that there was a marked rise in the mean air temperature and in the ground temperature in the weeks ending May 23rd and 30th (see table No. 4). The following table gives our weekly deaths from Diarrhœal Diseases during twenty weeks and the mean temperatures of the air, and of the earth at one and four feet deep, commencing when the latter temperatures first exceeded  $60^{\circ}$  and  $52^{\circ}$  respectively.

Week ending	Deaths.	Temperature.			Week ending	Deaths.	Temperature.		
		Air degs.	1 ft. degs.	4 ft. degs.			Air degs.	1 ft. degs.	4 ft. degs.
July 4	2	61.2	62.2	52.9	Sep. 12	3	51.7	57.0	55.2
„ 11	—	60.2	61.0	54.0	„ 19	4	47.8	53.7	54.7
„ 18	—	56.9	62.2	55.0	„ 26	9	58.4	56.6	53.9
„ 25	1	58.0	60.8	55.2	Oct. 3	7	57.5	56.5	54.1
Aug. 1	—	57.3	60.9	55.4	„ 10	7	52.5	55.2	54.2
„ 8	7	57.9	61.0	55.4	„ 17	6	49.5	52.2	53.7
„ 15	5	57.9	60.2	55.6	„ 24	1	48.4	51.1	52.8
„ 22	9	54.4	58.7	55.5	„ 31	2	48.0	49.3	52.0
„ 29	5	54.6	57.9	55.3	Nov. 7	—	42.2	47.3	51.1
Sep. 5	7	58.7	58.9	55.1	„ 14	1	47.3	46.4	50.0

During the three years 1896-98 the above table indicated that when the 4 ft. temperature exceeded  $52^{\circ}$  or the 1 ft.  $60^{\circ}$  the epidemic commenced. During 1899-1900 apparently higher temperatures were required to develop the epidemic, and this appeared possibly due to heavy rainfalls. In 1901, the figures were not very definite, but tended to the same inference as those of the previous years. During the last two years there has been very little real epidemic Diarrhœa, and the figures are in consequence too low to draw any reliable inferences from them. Last year it did appear as if the rainfall had greatly modified the epidemic, but the temperatures were also rather low. This year the temperatures have again been low, and the rainfall has been excessive, but it is difficult to trace any



direct modifying effect of the rainfall on the death returns. During the first fortnight above (ending July 11th) there was very little rain, the next fortnight was rather wet, the next week (ending August 1st) fairly dry. During the next six weeks (ending September 12th) the rain was terribly heavy, 6·62 inches; yet the Diarrhœal deaths persist, although diminishing. The week ending September 19th was dry, and may have had some effect in allowing the increased death returns in the three following weeks; but these weeks, and up to October 31st, were again excessively wet; this may account in part for the rapid cessation of the deaths. Of course any weather effects would only show in the death returns a week or two later than the actual weather occurrence.

The following Table gives the annual Diarrhœal deaths since 1890, and the weekly means of the 4 ft. deep earth temperature, the figures in the columns after the second give the number of weeks in each year during which this temperature exceeded the degree at the head of the column:—

		Deaths.	52°	53°	54°	55°	56°	57°	58°
1890	..	87	19	18	17	15	11	7	—
1891	..	120	18	15	12	3	—	—	—
1892	..	67	17	14	8	3	—	—	—
1893	..	227	22	19	15	13	10	5	1
1894	..	99	17	15	13	10	2	—	—
1895	..	255	20	18	16	14	10	—	—
1896	..	199	20	18	16	14	8	1	—
1897	..	319	20	17	14	11	7	4	—
1898	..	290	21	19	15	13	11	6	—
1899	..	239	19	18	16	13	11	9	6
1900	..	177	19	17	14	12	8	4	—
1901	..	144	20	16	14	12	7	2	—
1902	..	101	16	15	12	10	—	—	—
1903	..	113	17	15	12	8	—	—	—

The following gives similar figures for the 1 ft. deep earth temperature:—

		Deaths.	60°	61°	62°	63°	64°	65°	66°
1890	..	87	7	4	1	1	—	—	—
1891	..	120	4	1	—	—	—	—	—
1892	..	67	1	—	—	—	—	—	—
1893	..	227	12	9	8	4	1	1	1
1894	..	99	6	4	1	1	—	—	—
1895	..	255	8	3	3	2	—	—	—
1896	..	199	10	7	4	4	3	—	—
1897	..	319	11	8	7	5	1	1	—
1898	..	290	12	9	8	6	3	—	—
1899	..	239	15	15	13	8	7	4	1
1900	..	177	11	9	6	5	2	1	1
1901	..	144	9	8	7	5	2	—	—
1902	..	101	5	3	3	2	1	—	—
1903	..	113	7	1	1	—	—	—	—



The general relation to temperature is fairly marked, but it is equally evident that other factors must operate, for the worst epidemics do not coincide with the highest temperatures. Even the rainfall does not explain the discrepancies, for in the year of heaviest epidemic 1897, the temperature was not most excessive, and the rainfall was very heavy. The whole subject was very fully dealt with in the 1897 annual report.

### BOROUGH HOSPITAL.

There were 38 cases of Scarlet Fever and one of Small Pox in at the close of last year. The quarterly numbers dealt with this year have been as follows :—

Quarters.	Remain- ing in from previous Quarter.	Admitted for.		Total Discharged.		Died.		Average number of days in of the Scarlet Fev'r cases admitted.	Average daily number of Scarlet Fever Patients in Hospital.
		Scarlet Fever.	Small Pox.	Scarlet Fever.	Small Pox.	Scarlet Fever.	Small Pox.		
First ..	39	72 <sup>a</sup>	5	84	4	1	..	42·3	35·5
Second ..	28	116 <sup>b</sup>	1	85	3	4	..	39·7	43·8
Third ..	57	137 <sup>b</sup>	2	130	2	3	..	41·2	58·3
Fourth ..	64	135 <sup>c</sup>	..	145	..	4	..	40·1	64·6
Year ..	39	460	8	444	9	12	..	40·7	50·6

Leaving 54 cases of Scarlet Fever in at the close of year.

- (a) 7 from the Tettenhall District.  
 (b) 4       "       "       "  
 (c) 5       "       "       "

The following are the summaries of the cases admitted for Scarlet Fever in each quarter :—

*First Quarter.*—Seventy-two cases were admitted, one proved not to be Scarlet Fever. One case was fatal :—A, 5 years old ; severity of attack cellulitis of neck ; 5 days in. Seven cases were very severe, and fourteen severe. We had very few complications—Rhinitis, 2 cases. Otorrhœa,

2 cases. Adenitis, 2 cases. Suppuration, 2 cases. Skin Affections, 7 cases. Onychia, 3 cases. One case had Albuminurea on admission. One case had Conjunctivitis. One case had Corneal Ulcer when admitted. Two patients had Influenza, on January 24th and April 14th. We had considerable trouble with Chicken Pox, which was prevalent at the time. It was impossible to say in some cases whether the cases had been infected before or after admission. A brother and sister were admitted on January 6th, the sister had Chicken Pox next day, the brother on January 21st. Two cases came in on January 12th, one had Chicken Pox on January 21st, the other on February 7th. Two cases admitted on February 2nd and 4th, had Chicken Pox on the 22nd and 23rd. A case admitted March 25th had Chicken Pox on April 10th, a brother had Chicken Pox when admitted on March 31st. A case admitted March 30th had Chicken Pox April 24th. Two cases admitted on March 31st had Chicken Pox on April 13th, a sister had Chicken Pox when admitted on April 3rd.

*Second Quarter.*—One hundred and sixteen cases were admitted. Five were fatal:—A, 4 years old, very severe naso-pharyngitis and adenitis, toxæmia, collapse; 10 days in. B, 6 years old, severity of attack, moribund on admission, and died in a few hours. C, 4 years old, severe adenitis and suppuration, large abscess opened June 21st, 33 days after admission, did well; pneumonia June 30th, died July 7th; 49 days in. D, 5 years old, severe naso-pharyngitis and adenitis, toxæmia, badly collapsed when admitted; 5 days in. E, 3 years old, admitted with severe acute nephritis; 5 days in. Twelve cases were very severe, and sixteen severe. The principal complications were:—Rhinitis, 1 case. Otorrhœa, 10 cases. Adenitis, 7 cases. Suppuration, 4 cases. Onychia, 4 cases. Skin Affections, 9 cases. We had also three curious cases of very severe Urticaria, two children, without any connection, admitted on May 5th and 7th had Urticaria on the 13th and 12th; and a child admitted July 1st had Urticaria on the 19th. Albuminurea, 4 cases (one on admission). Two cases admitted April 15th and 23rd had Chicken Pox on May 13th and 10th. Two cases admitted on May 20th and 21st, had Measles on June 1st and July 1st, we could not trace the infection, and we fortunately had no further extension.

*Third Quarter.*—One hundred and thirty-seven cases were admitted ; one proved not to be Scarlet Fever, but took it six days after admission. Three cases were fatal :—A,  $2\frac{1}{4}$  years old, collapsed on admission and died in an hour. B, 5 years old, very severe naso-pharyngitis and adenitis, cellulitis of orbit, toxæmia ; 15 days in. C, 3 years old, very severe naso-pharyngitis and adenitis, toxæmia ; 2 days in. Nine cases were very severe, and eighteen severe. Complications were numerous :—Rhinitis, 10 cases. Otorrhœa, 13 cases, 3 admitted with. Adenitis, 6 cases. Suppuration, 4 cases. Skin Affections, 17 cases ; mostly Impetigo and Eczema ; 4 were severe Herpes. There were two cases of acute Urticaria on the same day. Onychia, 5 cases. Albuminuria, 4 cases, 2 on admission ; one case had severe Uræmia. Rheumatism, 4 cases, 2 on admission. One case had severe Pneumonia. Two cases, admitted July 17th and 31st, had Measles August 8th and 11th.

*Fourth Quarter.*—One hundred and thirty-five cases were admitted. Three were fatal :—A, 6 years old, very severe case of Scarlet Fever, developed Measles twenty days after admission, and died in two days ; 22 days in. Probably infected with Measles before admission, we had no case in for two months before. B, 1 year old, very severe adenitis and suppuration ; 16 days in. C, 4 years old, very severe naso-pharyngitis and adenitis, toxæmia ; 16 days in. Nine cases were very severe, and nineteen were severe. Complications were numerous and troublesome :—Rhinitis, 15 cases. Otorrhœa, 16 cases. Adenitis, 9 cases. Suppuration, 4 cases. Onychia, 4 cases. Skin Affections, 12 cases ; mostly eczema, 4 were Herpes. Cellulitis, 3 cases. Rheumatism, 1 case. Albuminurea, 1 case. Pneumonia, 1 case. One fatal case of Measles mentioned above.

During the year nine cases were attended by their own doctors, five doctors attending.

The following table gives the proportion of cases without definite signs of Scarlet Fever when seen on admission, and the results :—



Quarters.	Total admissions	Indefinite when admitted.				
		Total.	Apparently not had Scarlet Fever.			
			Total.	Safely Discharged	Caught Scarlet Fever.	Died.
First ..	72	9	1	1	..	..
Second ..	116	3	..	..	..	..
Third ..	137	4	1	..	1	..
Fourth ..	135	3	..	..	..	..
Year ..	460	19	2	1	1	..

This is a most remarkable record, that only two errors occurred in 460 cases, many of them diagnosed by the doctors reporting them under conditions of great difficulty.

In the fourth quarter of 1902 I have commenced a slight departure from previous custom as regards discharging patients, I paid no attention to any time limit, but discharged each case as soon as apparently free from complication. This has slightly reduced the stay in hospital, the average previous stay was about 47 days, since it has been about 41. Possibly a slightly greater risk is incurred of a discharged patient being infectious, but this, if any, is very slight, and is counterbalanced by the reduction of the number of cases in the Hospital.

*Return Cases.*—By these are meant cases that occur in a household to which a patient has lately returned from being in an Infectious Hospital, and which are supposed to be due to infection from such patient; these return cases represent the greatest failure of Hospital isolation. During the year 432 Scarlet Fever patients returned to their homes from the Hospital; in 32 instances we had further cases occur.

Infection may be conveyed by these returning children in any of the following ways:—they may act as mere carriers of the germs:—1st, on



clothing or hair through defective disinfection or cleansing, in such case infection would probably occur early or not at all;—2nd, germs may be inhaled while in the wards and retained in the complex nasal passages for a short time; in such case infection might be delayed for some few days after returning, but not for long, as the germs would soon be got rid of in the ordinary flow of nasal mucous;—3rd, certain lesions of the skin or mucous membranes appear highly infective, and in such cases the germs are, probably, not merely carried, but are still in the patient's body and grow and develop in the fluids of the lesions. In these cases infection may be retained for an indefinite period, we cannot at present say how long; but there is a strong probability that it is not present if it does not produce some effects within three weeks of the patient's return. The most serious of these infective lesions are sores within the nasal cavity, usually manifesting their presence by some nasal discharge, or rawness of the nostrils (rhinitis). Unfortunately such discharge is not always evident, and then the internal lesion is overlooked. The particulars of our 32 cases are as follows:—A, 39 days in hospital, 44 days ill; no complications before or after return; another case occurred 52 days after the return. B, 58 days in hospital, 62 days ill; had right otorrhœa before discharge, and for months after; another case occurred 49 days after the return. C, 39 days in, 42 ill; no complications; 45 days after return there was another case; this case was removed, and C remained with two other children without ill effect. D, 38 in, 41 ill, had otorrhœa; ceased before being discharged; after return home had for a short time a sore behind the ear, and some nasal discharge; 25 days after his return a sister, who lives at a distance, but whom he plays with at times, had Scarlet Fever; 37 days after his return a brother, who lives in the house with him, and a boy next door, both had Scarlet Fever. E, 50 days in, 53 ill, nephritis, had rhinitis, but clear when discharged, for three weeks after return home there was some nasal soreness; 36 days after return another case occurred. F, 36 days in, 38 ill; no complications whatever; 26 days after return another case occurred. G, 37 days in, 41 ill; no complications either before or after return; after 25 days another case occurred, and 4 days after that another. H, 39 days in, 41 ill; had Chicken Pox while in, but no complications; 25 days after return another case occurred; I, 41 days in, 42 ill; no complications while in, but said

to have had slight nasal discharge since return home ; 21 and 22 days after return two fresh cases occurred. The first of these cases had been playing with two other children, lately removed to the Hospital with Scarlet Fever. J, 41 days in, 42 ill ; had adenitis and rhinitis early, clear for some weeks before discharge, and nothing since ; 19 days after another case occurred, and 19 days after that another. K, 38 days in, 40 ill, no complications while in ; the day after return a small sore was noticed on the side of the nose, and he was sent away for ten days, on returning the sore had spread over some of the face ; 2 days after this, 12 days after returning from the Hospital, another case occurred ; and 26 days after this another case occurred. L, 37 days in, 39 ill, no complications, some desquamation of soles after return, 19 days another case occurred, and 3 days later another. Three children remained here unaffected. M, 39 days in, 41 ill ; no complications ; 19 days later another case. N, 38 days in, 40 ill, no complications ; five days after return played with neighbour's child, who thirteen days later had Scarlet Fever, 18 days after N's return. O, 35 days in, 39 ill, no complications in hospital ; since return had sore on ear 15 days later another case occurred. P, 36 days in, 39 ill ; no complications ; some desquamation of soles since return ; 14 days later another case occurred. Q, 50 days in, 53 ill ; otorrhœa in hospital, nothing since return ; 13 days later another case. R, 36 days in, 40 ill ; had Chicken Pox, no complications ; two other cases occurred 12 and 17 days after return ; two other children were unaffected. S, 40 days in, 43 ill ; no complications, seven days after return a child came home from Wales ; three days later (10 days after S's return from hospital) this child had Scarlet Fever, nineteen days after (29 days after S's return) another case occurred ; two children remained unaffected. T, 58 days in, 59 ill ; delayed by whitlow ; nothing since return ; 11 days later another case occurred. U, 46 days in, 49 ill ; rhinitis, clear when discharged, but recurred at home ; 9 days later another case. V, 39 days in, 42 ill, no complications in hospital, day after return home otorrhœa ; another case in 7 days. W, 18 days in, 42 ill (only admitted towards close of illness) ; no complications ; a neighbour's child who had been with W had Scarlet Fever 6 days after the return home. X, 37 days in, 40 ill, no complications, another case 5 days after return. Y, 38 days in, 40 ill ; no complications, 3 days after return another case occurred, and another 15 days



after that. Z, 39 days in, 41 ill; had otorrhœa in hospital, which recurred slightly after return home, two other cases 3 and 5 days later. In four other instances a fresh case occurred 3 days after the return. A, 45 days in, 47 ill, minute scab on chin in hospital, nothing since return. B, 46 days in, 49 ill; delayed by whitlow, nothing since return. C, 40 days in, 41 ill; no complications, soles said to be desquamating after return. D, two cases returned, 40 days in, 42 and 44 ill, one had had a boil on eyelid; nothing since return. Our final two instances were rather complicated. E, five children returned to a house; first, 34 days in, 41 ill, had rhinitis in hospital; two days later second child returned, 35 days in, 36 ill; three days later the other three children returned, 39 days in, 46, 40, and 40 days ill, none of these four had any complications; 4 days after this a child next door had Scarlet Fever. F, four children returned to a house; two, 35 days in, 42 ill; two days later another, 37 days in, 38 ill; next day another 40 days in, 41 ill; none of these had any complications; 4 days after the return of the last case a child next door, a playmate, had Scarlet Fever. With our present imperfect knowledge it is impossible to do more than conjecture about these cases, especially as the information about complications after the return is only from the statements of relatives, and is often not precise. The first three instances may be dismissed as most unlikely to be due to the Hospital case. Case (D) is uncertain, the sisters' case after 25 days might be due to the nasal mischief, but the two 37 day cases are not likely. (E, F, G, H) are very unlikely to be Hospital infection, the occurrence of two cases in connection with G might seem suspicious, but is not really more so than one, as at four days interval the second would probably be due to the first. (I) would be very suspicious on account of the nasal discharge, but there is distinct history of another source of infection. (J) is most unlikely, for though the 19 days case might possibly be due, the second case 19 days later is very unlikely, (as J was free from complications) and both cases probably came from the same source. K's two cases may have been due to him, although the infection in the first was doubtfully quick (2 days), and the second doubtfully slow (28 days after his return home, 38 after his leaving Hospital). L, M and N are possible but unlikely. P and Q are possibly instances of Hospital infection; so are R and S, but the other children remaining unaffected in each instance, and the long interval between the cases in S,



are rather against it. The remaining cases may fairly be assumed to be due to Hospital infection.

It must be remembered that the above represents not merely cases from houses to which Hospital patients had returned, but every case in which after careful inquiry we found any connection with cases from the Hospital; they do not represent a large proportion of failure; even including very doubtful cases they amount to 27 return cases, arising from 22 Hospital patients; out of 432 discharged. The following is suggestive in this connection; a child had sore throat, headache and vomiting on one day, the next evening Scarlet Fever rash; on this day a case returned to the house from the Hospital, had been 62 days in, 66 ill, detained because of otorrhœa, which still persisted; had the other illness been delayed a few days it would undoubtedly have been attributed to the first case. I have dwelt at some length on these cases because of their manifest importance. There seems no reason to think that our earlier discharge of patients has increased the returns.

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## METEOROLOGY.

(See Table 4).

*First Quarter.*—The temperature on the whole was of the same medium character which prevailed previous to last November. There was a brief spell of extreme cold in the second week (ending January 17th); the mean temperature for the week was only  $27\cdot2^{\circ}$ , and the maximum only occasionally rose above freezing point. The following week was much milder, the fourth week the mean temperature rose to  $45\cdot8^{\circ}$ , the sixth week was remarkably mild (mean temperature  $47\ 3^{\circ}$ ); the mean weekly temperature then fell slightly, but never below  $40\cdot7^{\circ}$ . The twelfth was very mild,  $47\cdot8$ , (maximum  $61\cdot4^{\circ}$ ). After January 18th the minimum shade temperature rarely fell to freezing point, and only once to as low as  $30\cdot2^{\circ}$ .

The amount of wind was exceptionally great, but is unrecorded. January 5th and 6th were very windy, there was very high wind on the 31st; February 7th, 8th, 9th and 10th were very windy, from the 19th of

February to 2nd of March there was almost constant high wind, at times very stormy. During the middle of March there were very high winds, the 16th was stormy. During the cold spell of the second week the wind was Easterly; during the rest of the quarter it was South Westerly, varying to West and occasionally North West.

The total rainfall 7.01 inches was rather heavy. The second week, and the four weeks from January 24th to February 21st, were very dry; the rest of the quarter was very wet, heavy showers being frequent and occasionally quite exceptional rainfalls occurring. There was a thunderstorm with heavy rain and hail on March 26th.

The mean humidity, 84, was rather high.

The barometer as a rule was high and steady, it was very low during the first and the twelfth weeks; it was exceedingly high during the second, sixth, and seventh weeks; it was low, with extreme variations during the ninth week.

*Second Quarter.*—Rather abnormal weather conditions still prevailed. The temperature was on the whole low, for the first six weeks it but little exceeded that of the first quarter, it then became somewhat milder, but there was only very occasional warm weather until the last two weeks of the quarter, which were fairly hot.

The total wind was high; for the first two weeks there were fairly high winds from the North West and North, then a week's moderate North East wind, then the same South West, then on the fifth week there were very high winds from the South East. The sixth and seventh weeks Westerly and moderate. There were then three weeks of Easterly winds of varying severity; there was a gale and thunderstorm on May 30th. During the last three weeks the wind was Westerly, and generally moderate.

The total rain-fall 4.66 inches was low. The first three weeks very dry; there was snow on April 5th, 6th, and 7th. The next fortnight was very wet, with some exceedingly heavy showers. From the sixth to the ninth week it was very dry, a few showers fell during the sixth and eighth,

the seventh and ninth were practically rainless. There were some very heavy showers during the tenth week, and still more so during the first half of the eleventh week. The last ten days of the quarter were almost rainless, except for a few heavy showers on June 25th.

The mean humidity, 77, was low.

During the first three weeks the barometer was high and fairly steady, then for a fortnight very low and steady. For the rest of the quarter it was as a rule fairly high, and usually steady, but there were occasional great variations from the sixth to the ninth week inclusive.

*Third Quarter.*—There was a complete absence of ordinary autumn weather. The temperature was far below the average, there was really no hot, and scarcely any even warm weather. The last week of the previous quarter was fairly hot, but its mean temperature ( $61.2^{\circ}$ ) was not reached again. The first week of the third quarter was  $60.2^{\circ}$ , the next five weeks were mild, just below  $58^{\circ}$ . The seventh and eighth weeks were cool, the ninth mild, the tenth and eleventh were cold; the last fortnight was mild.

The wind was generally moderate. There was light wind on July 6th. There was fairly constant high wind during the sixth week. There was high wind from the 6th to the 10th of September, and from the 18th to the 21st, the latter day was stormy. With but little exception the wind was Westerly. During the eleventh and twelfth weeks it was Easterly.

The rain-fall, 9.32 inches, was enormous. The first week was fairly dry; in the next fortnight over an inch of rain fell, in occasional very heavy showers; there was a thunderstorm with hail and heavy rain on the 17th July. The fourth week was fine, with a few heavy showers. There was very heavy rain on August 2nd; it was fairly dry to the 12th, but with some very heavy showers. From the 13th to the 20th there was frequent very heavy rain; and the same from the 24th to the 30th. Similar rain prevailed up to September 12th. On the morning of September 2nd there was an unprecedented rain, at about 9 a.m., it became very dark from heavy thunderclouds, at 9-15 there came on suddenly a hail and rain storm of tropical violence; in fifteen minutes we recorded 0.61 inches of



rain. There were extraordinary floods in the town, and much damage was done; the binding material was washed out of the surfaces of many of the roads, leaving them like dry river beds, banks of mud and silt were piled up in the lower roadways. The low lying sewers were filled and overflowing. From the 13th to the 20th of September it was dry, bright, and cold; but the rest of the quarter had the usual heavy showers.

The mean humidity, 78, was remarkably low considering the rainfall, but the atmosphere was usually fairly dry and clear.

The barometer was fairly steady and usually moderately high.

*Fourth Quarter.*—Weather conditions were still very exceptional. The temperature generally throughout the quarter was considerably above the average, mild wet weather continued up to the fifth week (first week in October) which was rather cold, and very variable. The seventh week was also cold and variable, with rather sharp frosts. The ninth week was very cold, the mean temperature for the whole week being  $32.7^{\circ}$ , greatest cold  $21.1^{\circ}$ . It was then milder until the thirteenth week, when the mean temperature was  $31.7^{\circ}$ . Although the general temperature was above the average these sudden spells of severe cold were very trying.

The amount of wind was low for the season. There was high wind on the 5th and 6th of October, and frequent high wind during the second week; the last week of October was very windy. The cold first week of November was very calm; there was very high wind on the 21st and 23rd. There was high wind on the 12th of December and constant rather high wind during the eleventh and thirteenth weeks. The prevailing direction was from the West; there was much East wind during the second, fourth, and tenth weeks; the high winds of the eleventh and thirteenth weeks were South Easterly.

The rain-fall 8.92 inches was terribly heavy. During the first four weeks (October) 5.45 inches of rain fell, the last week of these the rain at times was almost tropical, on October 25th and 27th the amount was .76 inches and 1.08 inches respectively, the week's amount nearly reaching 2 inches. The first three weeks in November were much drier, but the next

week (the tenth of the quarter) there was a fall of 1·3 inches. The eleventh week was fairly dry, during the twelfth and thirteenth weeks there were only a few slight showers, on the last week mostly snow. There was rather a severe thunderstorm with hail on October 15th.

The mean humidity 90, was very high. There was less fog than usual, but it was almost always dull and damp. There was almost constant fog, at times heavy, from the 4th to the 7th of November; and there were fogs, usually at night during the middle of December.

The barometer ranged much lower than usual. During the second week in December the mean reading was only 29·273 inches, on December 7th the 9 a.m. reading was 29·013 inches. These readings are corrected.

The total rain-fall for the year was 29·91 inches, nearly one-third above the average.

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### REMARKS ON THE TABLES.

We have had two changes which slightly affect our statistics this year. At the beginning of the year the boundary line between the two Sub-districts was altered, in the north from North Street to Waterloo Road, in the south from Dudley Road to Green Lane; the former being an addition to the East, the latter to the West. The district gained by the East contains old streets and has practically remained unchanged since the 1891 census, but that lost to the East, lying on the east side of the Dudley Road has been rapidly developing, in 1891 the most of this area was open land bounded by a hedge; now the whole frontage is built over and there are many new streets of houses built also. The increase in this area was one of the chief factors in compensating for the East losses in the poorer older areas, and helped to cause the increase of population in the intercensal decade, from 39,037 in 1891, to 40,276 in 1901. The West increase in the same period was from 43,625 to 53,903. The transfer of this Dudley Road and Green Lane area to the West has done away with the East increase, and still further increased the West; the populations of the New East at the 1891 census was 40,885, being increased by the addition of the populous area between Waterloo Road and North Street, but in 1901 it was only 40,696; so that this Sub-district for the next intercensal period will have an estimated diminishing population. The corresponding populations of the West are 41,777, and 53,491.



The other change is less serious in its immediate effect on our figures ; in the middle of the year the Workhouse was transferred from the old position in the East Sub-district to New Cross, Wednesfield, outside the Borough. The total number of persons thus removed out of the Borough was about 960, including officials. A proportion of these were not actual Wolverhampton residents, having come from the outside parts of the Union, but they have always appeared as part of the East population in our census returns, the deaths amongst these outside residents have been referred to the localities to which they belong, so that our East death rates have always been slightly lower than the correct rate, being estimated on a population including a few residents from the West Sub-district and from outside the Borough. To correct this error deaths of persons in the Workhouse returned as having no home have been referred to the East Sub-district. The only difference made in our tables until the next census is the exclusion of these "no home" deaths ; I have obtained by courtesy of the Guardians and the Union Officials weekly returns of the deaths taking place in the New Workhouse of residents from Wolverhampton, and they are referred as formerly to the Sub-districts from which they came. The population of the Workhouse at the last census is retained in that of the East Sub-district. The other Public Institutions mentioned at the foot of Table No. 9 are still in the Borough, and the deaths in them have been referred to the districts from which they came, during the year 168 were from outside the Borough, particulars of these are sent to the Medical Officers of their own Districts. Five deaths of Wolverhampton residents were reported to me as having died outside the Borough. Three were from the West Sub-district, two addresses were given as Wolverhampton merely. Four of these deaths were between 25 and 65 years of age, one was 70 years.

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### VITAL STATISTICS.

Tables 8 and 9 give certain figures for the Borough for eleven and twenty-three years. The death rate for 1900 was 21·4, and this was about the same as the previous ten years' average. The death rate fell in 1901 to 16·7, and again in 1902 to 16·2, these figures are fully commented on in last year's Report. For three reasons it appeared unreasonable to claim much of the sudden drop as the result of our work ;—1st our work is



gradual and the change was sudden ; 2nd, there had been an improvement in the same period in the town rates generally ; 3rd, there had been a marked change in the weather, extremes of temperature were more or less absent, and rain greatly increased. The second year's continued improvement made it somewhat more likely that our own work was telling, especially as in both years our relative position amongst the towns was remarkably improved. Now the present year we have a further drop, actually double last year's, our death rate being down to 15·2, a really remarkably low death rate for such a town as ours.

For the nine years preceding 1901 our position in the 33 greater towns, and the *excess* of our death-rate over their total death-rate has been—

	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Position ..	25th	24th	29th	26th	24th	26th	27th	26th	27th
Death rate excess	0·19	1·03	2·07	3·18	0·43	2·42	1·68	0·99	2·44

That is, during this nine years, on an average, 25 of the towns had a lower rate than ours, and only 7 had higher, and our rate was 1·6 higher than the total rate of the towns. During the three following years our position and the excess of their death-rate over ours has been—

	1901.	1902.	1903.
Position ..	8th	8th	11th
Death rate excess	1·89	1·20	1·17

Thus not only have we had an extraordinary improvement on our own past but a still more remarkable one in our relation to the great towns. It certainly does seem as if we were justified in attributing much of this improvement to our own work. Two points, however, should make us careful not to conclude too much ; the general town rate has dropped practically the same as we have, the 33 towns' death rate is ·88 lower than last year ; and the weather conditions, especially as regards the heavy rainfall, have been much more marked this year than even in the two preceding ; strongly indicating some close relationship between them and the diminishing death rate. At the same time, if these weather conditions are the principal factor in reducing the death rate, we must draw the peculiar conclusion that ordinary weather is more prejudicial to the health of Wolverhampton than to that of the 33 great towns.

The Birth-rate, although an important index of the prosperity and progress of a town, does not directly concern the health authority as such, but it has a marked effect on the total death-rate, and on the death-rates from certain diseases. I regret to note that our birth-rate is a diminishing one, in the last decade it was 33·46, in the previous decade 34·14, for the last two years it has averaged only 31·8, this year it is only 30·4. This has in some degree helped to reduce our infant deaths, which have been low during the last three years (see Table 9), and has thus contributed to reducing the total death-rate. Amongst the 33 great towns we are fourteenth, thirteen having a higher birth-rate than ours (see Table 11), of the ten towns with lower death-rates than ours one, Cardiff, has the same birth-rate, and one, West Ham, has a higher birth-rate. The mean birth-rate of the 33 towns is 29·0; 1·4 below ours. In the proportion of deaths under one year to 1000 births we stand fairly well, tenth, only nine of the towns having a lower rate. Our relative position as regards diarrhoea is rather bad, only ten of the towns having a higher rate, and one having the same rate as we have; the general death rate from diarrhoea has been low. Diarrhoea being mainly fatal amongst children we find a very low rate in almost all the towns with a low birth rate; this is the principal reason why we have a relatively bad position. The general zymotic death rate is so much affected by the diarrhoea rate that our position as regards the former rate is not very good, there are only fifteen of the towns higher; our most serious contributant besides diarrhoea is measles.

On the whole I think our comparison with the towns a very favourable one, considering our child population, and our poverty.

In the above comparison with the towns use is made of the Registrar-General's figures from Table No. 11, and these differ in slight details, <sup>from mine,</sup> but not enough to affect the comparison.

Table No. 8 gives the comparison with former years as regards certain details; with the exception of Measles every return is far below the average, and nearly every return is below even last year's.

Our most instructive statistics are those of the two Sub-districts, given in Tables Nos. 5, 6, and 10. Last year (see Table No. 10) it was disappointing to find that the whole of the improvement on 1901 had been in the West, where it was least needed; this year the reverse is the case;



indeed last year's figures for the West were so low that much improvement on them could hardly be hoped for just yet; and we find the death rate this year, 13·2, is only 0·3 lower, and the infantile mortality, 121, is 8 higher than the previous year's. The birth rate has fallen 0·7. In the East the death-rate 17·8 has fallen 1·1; the infantile mortality is practically unchanged; the birth-rate has fallen 1·9. The death-rate is only moderately high, and the infantile mortality is still very high; but both are an enormous advance on the records before 1901. In spite of this the comparison with the West alone shows that much is still to be desired in the East. The figures in Table No. 6 carry out this comparison for the quarters, these have been already commented on in the quarterly reports. In comparing figures, apart from rates, the great difference in population between the two Sub-districts should be taken into account.

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## SANITARY CONDITION OF AND SANITARY WORK IN THE BOROUGH.

This part of my report is necessarily much of it mere repetition. There is no special matter of great importance needing attention in the Borough, and therefore there is no great work to be done. Last year I summarized most of the petty deficiencies that really constitute our most serious sanitary defect; and which have to be remedied by the individuals on whose property they exist, or to whose negligence they are due. I then also mentioned a few greater matters of more general interest that need attending to when possible, and which will fall upon the community as a whole. Of these the most urgent is, the conversion of our pail closets, into water closets, which would be done under our Provisional Order, and which would be a heavy charge on the rates, as in most cases much of the cost would have to be borne by the Borough. These pail closets are generally situated in the most crowded parts of the town where there is a minimum of fresh air, and where, therefore, there is the most urgent need for the removal of such potent causes of air impurity. There is no one thing that could be suggested to improve our general health condition of such importance as the removal of these closets. Experience goes to show that waste-water closets would be suitable to replace the pail closets in comparatively few cases; the majority would need to be replaced by ordinary water closets or by trough closets. This suggests our next greatest need, second perhaps in order of importance, but which will need



to be first in order of time, that is an increased water supply. This must be faced at the earliest possible opportunity. Not only would any great conversion of pail into water closets put too great a demand on our present supply, but such conversion in the poorer districts will scarcely be possible unless the necessary water can be supplied gratuitously. It would not be reasonable to ask a property owner to pay for a water carriage which he has adopted for the public benefit, while at present we charge him nothing for a method of removal which is little short of a public nuisance. Not only so, but our experience of the past three years, and especially of the last, shows unmistakably what a lavish supply of water for general cleansing and flushing purposes can do for the health of our town. The benefit of a free use of water is twofold, first the general cleansing effect; yard and court surfaces, roads and drains, are all washed, and thus decomposing matters are removed, and air impurity lessened; second, the prevention of dust; this is a matter of the greatest importance; dust, and especially the lighter dust, is mostly organic matter, and contains myriads of living organisms, many of them germs of disease; the amount of filth that we inhale and swallow in this form in dry weather is simply inconceivable; anything to diminish this evil makes strongly for the public health.

It is greatly to be regretted that our Bye-Laws allow of new buildings being put up with so little air space between them. Many of our new streets are far too close together; with the various outbuildings and projections from the backs of the houses the amount of free space is very small, and this greatly lessens the air changing effect of wind. This is very deplorable, especially as in such a borough as ours, with a large amount of land unbuilt on, there is no excuse for this form of overcrowding.

It must not be forgotten that the great work of our Health Department is in dealing with the petty deficiencies already mentioned. The Tables in Mr. Peers' Report give particulars of this work during the year; a glance at those shows clearly that although most of the individual nuisances may, taken by themselves, appear trivial, yet in the aggregate their evil effect must be enormous, and the total improvement due to their abatement is proportionately great. Undoubtedly whatever credit may be due to our department for the striking improvement in the Town's health is due to this part of our work.

The efficiency of this work is greatly impaired by the tedium of the legal steps by which it is carried out ; a statutory notice can only be served for the abatement of a nuisance, no matter how urgent, by the Sanitary Authority, that is by the Health Committee acting for the Town Council. An urgent nuisance arising just after a meeting of the Committee has to await the next meeting before a statutory notice can be served for its abatement. And after that there may be much further delay before the notice can be enforced. In order to treat property owners and others with due courtesy, and to facilitate the abatement of urgent nuisances by those conscientious persons who gladly comply with demands made on the grounds of health, our procedure is in all cases to at first send a mere intimation letter telling of the defects and the needed remedies ; only on this letter receiving no attention is the statutory notice sent. Now we find that many, especially agents, knowing that the intimation letter has no legal force, utterly disregard it, and only move on receiving the statutory notice, and often not then until the last steps are taken to compel compliance. Thus a nuisance is only abated after the maximum of expense and trouble has been caused to our department, and often at a greater cost to the property than if compliance had been immediate. It is not fair to the public that their money and their officials' time should be wasted thus ; and I am confident that more energetic proceedings would eventually secure better results and with less friction. This will have to be considered.

The Milk Supply is a matter which concerns the health of all large towns, especially of the children ; unfortunately at present any efficient control is impossible, for we have no jurisdiction outside our boundaries, and most of our milk supply comes from outside, some of it from far outside ; see the various sources of supply mentioned in Mr. Peers' Report. We can do much with the condition of Animals, and Premises in the Borough, the Veterinary Inspector's and our own Inspectors' work in this direction is most valuable ; but when our requisitions become at all stringent in any case, we are eluded by the transference of the business to outside the Borough. Although we have endeavoured to obtain some limited powers outside our boundary, such powers would be of very little real use ; considering the distances from which our milk supply comes, it would be impossible for our staff to exercise any practical control over it. If real good is to be done (and improvement is badly needed) it must be done by general legislation and action,



*Workshops.*—Our Register of Workshops is now complete, we have slightly over 1,000 in the Borough ; the number varies, as old shops are closed or new opened ; we have also 104 Bakehouses. The work done by the Workshops Inspector for nine months of the year is shown in Table D (Mr. Peer's Report) and is a good record. Of course the great majority of our premises are very old and poorly constructed ; and many of them are very badly situated, through their surroundings excluding air and light. The requirements of the Act are most necessary, and only a justice to those who are employed in the various workshops ; at the same time great care has to be exercised in carrying out its provisions in so old a town as ours ; they have to be enforced very tactfully and gradually, or we would probably by stopping work do more harm than we were preventing. By proceeding slowly, and only at first dealing with either the most urgent matters, or with matters so slight that they can be easily remedied, we are steadily effecting great improvements. As regards our Bakehouses similar difficulties exist, the majority of them were erected in a primitive manner and in unsuitable surroundings, at a time when present ideals were unknown. Strictly speaking a large number of them are unfit for their purpose, but we have to proceed gently in dealing with them.

As regards all these matters, and others, (some referred to in Mr. Peers' Report), such as Canal Boats, Slaughter-houses, inspection of Work in progress executed in Compliance with Notices, interviewing many Persons daily in reference to Complaints and Notices ; inquiries into every case of Infectious Disease Reported ; frequently removing and disinfecting after the same ; keeping careful records of these and all other details of the work, &c. It is evident that our present staff is not sufficient to deal adequately with such overwhelming demands. The work can be reduced by a prompter method of dealing with our requisitions, such as I have already suggested may have to be adopted. We may then get on for a time with our present staff, being content to move slowly and not aiming at too much perfection, which, I think, our exigencies compel us to be satisfied with for the present. But it must be borne in mind that in so doing we are being content with a low ideal, and when the opportunity arises we ought to aim at a higher ; and it must also be remembered that legislation is almost yearly imposing fresh work upon the Sanitary Authorities and their staffs.



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# TABLE No. I.

Cases of Infectious Diseases recorded in 1903.

	EAST SUB-DISTRICT. POPULATION 40,654.					WEST SUB-DISTRICT. POPULATION 56,550.					BOROUGH. POPULATION 96,994.					TOTALS.			RATE PER 10,000 OF POPULATION.		
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.	East Sub-District	West Sub-District	Borough.	East Sub-District	West Sub-District	Borough.
Small Pox .. { Under 5 years .. { 5 years & upwards	.. 4	.. 1	.. 1	.. :	.. 6	.. :	.. :	.. 1	.. :	.. 1	.. 4	.. 1	.. 2	.. :	.. 7	6	1	7	1.5	0.2	0.7
Measles .. { Under 5 years .. { 5 years & upwards	26	83	36	48	193	143	89	10	2	244	169	172	46	50	437	351	480	831	86.3	84.9	85.7
Scarlet Fever { Under 5 years .. { 5 years & upwards	17	39	47	60	163	40	39	65	57	201	57	78	112	117	364	237	313	550	58.3	55.3	56.7
Diphtheria .. { Under 5 years .. { 5 years & upwards	2	..	.. 3	2	4	1	4	2	5	12	3	9	2	7	16	9	37	46	2.2	6.5	4.7
Enteric Fever { Under 5 years .. { 5 years & upwards	2	1	.. 5	1	4	2	.. 3	.. 7	.. 9	2	4	1	.. 12	1	6	36	35	71	8.8	6.2	7.3





TABLE No. 2. (Table III, L.G.B.)

Cases of Infectious Disease Recorded during the Year 1903, and the Proportion Treated in Hospital.

	DISEASE.	CASES RECORDED.								CASES TREATED IN HOSPITAL.										
		At all Ages.	At Ages—Years.						At all Ages.	At Ages—Years.										
			0—	1—	5—	15—	25—	65—		0—	1—	5—	15—	25—	65—					
EAST SUB-DISTRICT.	Scarlet Fever..... { Cases ..... Deaths ..	237 8	3 1	71 4	151 3	12 ..	.. ..	206 6	2 ..	61 4	134 2	9 ..	.. ..	237 5	1 ..	82 3	138 2	10 ..	6 ..	.. ..
	Diphtheria..... { Cases ..... Deaths ..	9 2	.. ..	4 1	4 1	1 ..	.. ..	4 1	.. ..	3 1	.. ..	1 ..	.. ..	2 ..	.. ..	1 ..	7 1	8 3	.. ..	.. ..
	Enteric Fever .... { Cases ..... Deaths ..	36 8	.. ..	4 ..	7 1	14 4	10 2	1 1	24 6	.. ..	1 ..	7 1	8 3	.. ..	.. ..	.. ..	8 2	.. ..	.. ..	.. ..
WEST SUB-DISTRICT.	Scarlet Fever..... { Cases ..... Deaths ..	313 6	5 ..	107 4	182 2	11 ..	8 ..	237 5	1 ..	82 3	138 2	10 ..	.. ..	2 ..	.. ..	1 ..	1 ..	.. ..	.. ..	.. ..
	Diphtheria ..... { Cases ..... Deaths ..	37 8	2 2	10 3	12 3	6 ..	7 ..	2 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	Enteric Fever..... { Cases ..... Deaths ..	35 6	.. ..	2 ..	9 1	7 1	16 4	1 ..	15 2	.. ..	1 ..	5 ..	3 ..	.. ..	.. ..	.. ..	6 2	.. ..	.. ..	.. ..
BOROUGH.	Scarlet Fever ..... { Cases ..... Deaths ..	550 14	8 1	178 8	333 5	23 ..	8 ..	443 11	3 ..	143 6	272 4	19 ..	.. ..	6 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	Diphtheria ..... { Cases ..... Deaths ..	46 10	2 2	14 4	16 4	7 ..	7 ..	6 1	.. ..	4 1	1 ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
	Enteric Fever .... { Cases ..... Deaths ..	71 14	.. ..	6 ..	16 2	21 5	26 6	2 1	39 8	.. ..	2 ..	12 1	11 3	.. ..	.. ..	.. ..	14 4	.. ..	.. ..	.. ..

Diphtheria includes “Membranous Croup”; and Enteric Fever includes “Continued Fever.”  
441 of the Scarlet Fever hospital cases were treated in the Borough Isolation Hospital, two cases were treated in the General Hospital.  
The Diphtheria hospital cases were all treated in the General Hospital, so were 37 of the Enteric Fever cases, 2 of the East cases (1 fatal) were in the Workhouse.  
Of the General Hospital Cases, 1 East, and 2 West Diphtherias; and 10 East and 11 West Enteric Fevers were treated by order of the Health Committee.



TABLE No. 3.

WEEKLY RETURNS under the Infectious Diseases Notification Act, and prevalence of certain other Diseases.

A few cases x.      Prevalent xx.      Very prevalent xxx.

1903.		Small Pox.	Scarlet Fever.	Diphtheria	Enteric Fever.	Puerperal Fever.	Measles.	Whooping Cough.	Pneumonia	Influenza.
Week ending.										
January	10th..	..	4	..	2	..	x	x	xxx	xxx
"	17th..	..	7	..	1	..	xx	x	xxx	xxx
"	24th..	..	7	..	..	..	xx	..	xxx	xxx
"	31st..	..	11	..	1	..	xx	..	xxx	xxx
February	7th..	2	9	1	5	..	xx	x	xxx	xxx
"	14th..	1	11	..	2	..	xx	x	xx	xx
"	21st..	1	8	1	5	1	xx	x	xx	xx
"	28th..	..	6	1	1	..	xx	x	x	x
March	7th..	..	6	1	3	..	xx	xx	x	xx
"	14th..	..	5	..	2	1	xx	x	x	xx
"	21st..	..	5	..	2	..	xx	x	x	x
"	28th..	..	4	..	3	..	xx	x	x	x
April	4th..	..	10	1	1	..	xx	x	x	x
"	11th..	..	2	3	1	..	xx	x	x	x
"	18th..	..	4	..	1	..	xx	x	x	x
"	25th..	1	11	2	..	..	xx	x	x	x
May	2nd..	..	13	..	1	..	xx	x	xx	xx
"	9th..	..	17	2	2	..	xxx	x	xx	xx
"	16th..	..	9	2	1	..	xxx	x	xx	xx
"	23rd..	..	18	..	1	..	xxx	x	x	x
"	30th..	..	7	..	4	..	xxx	x	x	x
June	6th..	..	7	..	..	..	xxx	x	x	x
"	13th..	..	7	1	..	..	xxx	x	x	x
"	20th..	..	11	1	2	..	xxx	x	x	x
"	27th..	..	19	2	..	..	xxx	x	x	x
July	4th..	..	10	1	1	..	xx	x	x	x
"	11th..	..	17	..	3	..	xx	x	x	x
"	18th..	..	12	..	1	..	xx	x	x	x
"	25th..	..	11	3	1	..	xx	x	x	x
August	1st..	1	14	4	2	..	xxx	..	x	x
"	8th..	..	4	..	1	..	xxx	..	x	x
"	15th..	1	13	1	2	1	xx	..	x	..
"	22nd..	..	14	..	1	..	xx	..	x	..
"	29th..	..	9	2	1	..	xx	..	x	..
September	5th..	..	15	..	1	..	xx	..	x	..
"	12th..	..	17	..	..	..	xx	..	x	x
"	19th..	..	7	1	1	..	xx	..	x	x
"	26th..	..	11	..	..	..	xx	..	x	x
October	3rd..	..	16	1	..	..	x	x	xx	xx
"	10th..	..	13	..	1	..	x	x	xx	xx
"	17th..	..	12	2	..	..	x	x	xx	xx
"	24th..	..	14	2	3	2	x	x	xx	xx
"	31st..	..	11	1	1	..	x	x	xx	xx
November	7th..	..	13	3	..	..	x	x	x	x
"	14th..	..	10	1	1	..	x	x	xx	xx
"	21st..	..	20	1	..	..	x	x	xx	xx
"	28th..	..	15	1	3	..	x	xx	xx	xx
December	5th..	..	14	1	1	..	x	xx	xxx	xxx
"	12th..	..	9	1	2	1	x	xx	xxx	xxx
"	19th..	..	14	..	2	..	xx	xx	xxx	xxx
"	26th..	..	14	1	1	..	xx	xx	xxx	xxx
January	2nd..	..	6	2	1	..	xx	xx	xxx	xxx
YEAR ..		7	553	47	72	6				

Tables 1 and 2 do not tally: 1 including a few cases not reported by Doctors, and 2 including some cases which ultimately proved incorrect.





# TABLE No. 4.

Weekly Meteorological Report, from observations taken at 9 a.m. daily.

Week ending.	BAROMETER REDUCED TO 32° AND SEA LEVEL.		Humidity.	TEMPERATURE.					Rain.	WIND.		Death Rate per 1,000 per annum.	
	Mean.	Range		Max.	Min.	Mean.	Earth.			Prevailing Directions.	Total in Week.		
							1ft.	4ft.					
1903.	in.	in.	°-100	°	°	°	°	°	in.		mls.		
January 10th	29.493	.591	82	52.6	32.3	43.1	42.0	45.0	.80	W, SW	Anemometer obstructed.	24.7	
„ 17th	30.328	.833	*	34.5	17.0	27.2	37.3	44.5	.08	NE, E. SE		16.7	
„ 24th	30.163	.362	93	50.2	26.5	38.2	35.7	43.1	.21	SE, SW		17.7	
„ 31st	30.071	.445	86	52.4	37.3	45.8	41.6	42.8	.06	SW, W		10.2	
February 7th	30.170	.384	83	52.4	30.2	42.6	41.3	43.4	.03	W		14.5	
„ 14th	30.316	.535	87	58.2	34.7	47.3	45.3	43.8	—	SW, NW		15.1	
„ 21st	30.296	.641	80	58.0	32.1	43.5	43.2	44.4	.05	SW		12.4	
„ 28th	29.664	.550	83	53.4	31.0	42.0	43.9	44.5	1.19	SW		11.8	
March 7th	29.617	1.078	88	52.8	32.0	40.7	41.9	44.3	.83	W		10.2	
„ 14th	30.011	.430	85	51.3	34.0	41.3	42.4	44.1	1.18	SW		12.4	
„ 21st	29.867	.602	81	56.4	33.7	43.7	43.8	44.2	.92	SW	Anemometer obstructed.	20.4	
„ 28th	29.562	.672	79	61.4	37.5	47.8	46.2	44.7	.84	SW		12.9	
April 4th	29.986	.410	76	53.5	31.7	43.3	45.5	45.3	.82	W, NW		18.8	
„ 11th	30.109	.527	78	55.4	35.2	45.9	46.7	45.4	.04	NW		1435	10.8
„ 18th	30.168	.516	70	48.9	24.7	36.0	45.7	45.8	.09	N		1260	11.3
„ 25th	29.811	.689	68	59.9	27.5	39.5	46.1	46.0	—	NE		1028	22.1
May 2nd	29.495	.278	86	59.4	40.4	48.0	48.2	46.1	1.40	SW		1193	19.4
„ 9th	29.519	.481	91	56.6	39.0	48.0	50.5	46.9	.90	SE		2897	18.8
„ 16th	29.928	.527	77	58.6	33.6	44.7	49.8	47.5	.39	W		1147	16.1
„ 23rd	30.065	.709	69	75.6	39.1	53.1	52.6	47.8	.02	SW		901	16.1
„ 30th	30.163	.601	69	68.3	37.7	54.0	56.6	49.3	.39	NE, SE	1478	17.7	
June 6th	30.216	.589	74	70.8	39.6	54.5	59.1	50.8	—	NE	994	18.3	
„ 13th	30.063	.533	77	67.7	39.2	51.6	56.9	51.9	.44	E	1348	13.4	
„ 20th	29.789	.289	78	64.6	40.5	48.2	54.4	51.8	.84	NW, NE	1266	15.1	
„ 27th	30.121	.261	68	80.0	34.1	57.1	57.6	51.7	.12	SW	879	15.6	
July 4th	30.173	.426	68	78.7	48.4	61.2	62.2	52.9	.03	W	968	16.0	
„ 11th	30.117	.514	67	86.0	41.3	60.2	61.0	54.0	.04	NW	869	13.4	
„ 18th	29.817	.429	73	72.0	46.0	56.9	62.2	55.0	.41	SW	693	15.6	
„ 25th	29.924	.322	79	70.6	50.5	58.0	60.8	55.2	.66	SW	687	10.8	
August 1st	29.802	.344	83	72.1	48.8	57.3	60.9	55.4	.22	NW	865	14.5	
„ 8th	29.978	.486	69	72.3	47.1	57.9	61.0	55.5	.61	NW	1132	12.9	
„ 15th	29.605	.889	74	71.0	46.9	57.9	60.2	55.6	.60	SW	1560	13.4	
„ 22nd	29.692	.303	82	67.7	46.1	54.4	58.7	55.5	1.88	NW	766	14.5	
„ 29th	29.939	.439	79	67.6	44.1	54.6	57.9	55.3	.89	SE, SW	1071	12.9	
Septem. 5th	29.962	.394	84	79.6	47.9	58.7	58.9	55.1	1.28	SW	1140	9.7	
„ 12th	29.894	.722	76	64.2	40.4	51.7	57.0	55.2	1.36	W	1125	12.9	
„ 19th	30.258	.723	80	64.3	35.0	47.8	53.7	54.7	—	NE	965	11.3	
„ 26th	30.137	.316	87	69.4	45.0	58.4	56.6	53.9	.56	SE	1151	18.3	
October 3rd	29.814	.333	86	65.7	49.2	57.5	56.5	54.1	.81	SW	992	14.5	
„ 10th	29.673	.426	89	63.4	36.8	52.5	55.2	54.2	1.27	SW	1397	15.6	
„ 17th	29.472	.863	84	59.0	40.0	49.5	52.2	53.7	1.57	SE, SW	1440	14.5	
„ 24th	29.751	.708	90	56.6	38.2	48.4	51.1	52.8	.63	SW	1040	10.8	
„ 31st	29.487	.807	86	58.2	38.9	48.0	49.3	52.0	1.98	SW, SE	1517	10.8	
Novem. 7th	30.396	.605	94	56.9	28.8	42.2	47.3	51.1	.30	NW	383	14.5	
„ 14th	30.119	.635	91	54.1	33.2	47.3	46.4	50.0	.24	NW, SW	1126	13.4	
„ 21st	29.973	.589	88	52.9	25.6	38.7	43.3	49.3	.12	NW	1157	17.7	
„ 28th	29.964	1.072	88	54.4	35.0	44.1	44.1	48.2	1.05	NW	1432	14.5	
Decem. 5th	29.731	.835	*	43.3	21.1	32.7	39.9	47.4	.09	SW	833	20.4	
„ 12th	29.273	.532	90	48.4	28.5	39.7	39.3	45.9	1.30	SW, SE	1493	23.7	
„ 19th	29.727	.649	89	46.0	34.0	40.3	40.7	45.2	.24	SE	1638	16.1	
„ 26th	30.100	.261	96	48.4	30.3	41.3	42.7	45.0	.07	SW	1025	12.4	
January 2nd	30.088	.315	*	43.4	25.0	31.7	36.8	44.9	.06	SE	1428	23.1	

\* Frozen. Total Rainfall in the year, 29.91 inches.





TABLE No. 5.—Weekly Returns of Deaths in the Sub-Districts.

			EAST SUB-DISTRICT.														WEST SUB-DISTRICT.																																					
			Week ending		January.				February.				March.				April.				May.				June.				July.				August.				Septem.				October.				Novem.				Decem.				Totals	
					10	17	24	31	7	14	21	28	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5		
MEASLES	{ Under 5 years	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	1	1	1	1	4	2	4	1	..	1	1	..	1	2	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	26			
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2				
	SCARLET FEVER	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	7				
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	1				
	WHOOPING COUGH	{ Under 5 years	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3					
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
	DIPHTHERIA	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1				
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
ENTERIC FEVER	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..			
	{ 5 & upwards	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1	..	..	..	..	..	..	10			
DIARRHOEAL DISEASES	{ Under 5 years	2	..	1	1	1	..	1	1	..	..	..	..	1	1	..	..	3	..	4	1	1	..	1	..	..	1	..	1	..	3	5	6	3	3	1	1	5	3	5	4	..	1	..	1	2	..	..	..	63				
	{ 5 & upwards	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	5				
PHTHISIS	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3					
	{ 5 & upwards	1	1	..	..	1	1	..	..	1	1	..	1	..	..	1	2	..	1	2	1	1	..	1	1	..	1	1	..	5	1	3	..	2	..	..	..	..	..	1	..	..	2	2	2	2	1	1	..	2	41			
RESPIRATORY DISEASES	{ Under 5 years	2	..	2	..	1	2	3	2	..	1	2	1	1	..	2	1	1	1	2	2	1	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	2	5	5	11	9	3	4	2	73					
	{ 5 & upwards	5	3	2	3	1	..	..	1	2	1	4	2	2	..	1	1	1	6	1	..	..	..	3	1	1	1	2	1	2	..	1	..	2	..	1	..	1	..	1	1	1	1	1	2	1	1	4	2	1	1	69		
MEASLES	{ Under 5 years	1	2	5	..	..	..	1	1	..	1	..	..	2	..	..	2	..	2	..	2	..	1	1	3	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25					
		{ 5 & upwards	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3					
	SCARLET FEVER	{ Under 5 years	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3					
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	3					
	WHOOPING COUGH	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	4				
		{ 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
	DIPHTHERIA	{ Under 5 years	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	5					
		{ 5 & upwards	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3				
ENTERIC FEVER	{ Under 5 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
	{ 5 & upwards	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	6					
DIARRHOEAL DISEASES	{ Under 5 years	1	..	..	..	1	..	1	1	1	..	1	..	1	1	1	..	1	2	1	..	..	2	..	..	..	2	..	..	3	..	3	1	3	2	2	4	3	2	1	1	1	..	..	..	..	..	..	41					
	{ 5 & upwards	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..						



TABLE No. 6.—Quarterly Births and Deaths during 1903.

QUARTERS.	East Sub-District, 40,654.					West Sub-District, 56,550.					Borough, 96,994.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Year.				1st	Year.				1st	Year.				1st	Year.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1st	2nd	3rd	4th		1st	2nd	3rd	4th		1st	2nd	3rd	4th		1st	2nd	3rd	4th	Year.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
BIRTHS.	Males	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</



TABLE No. 7.

*DEATHS in the Sub-Districts during 1903, classified according to Ages and Diseases.*

No.	DISEASES.	EAST SUB-DISTRICT.									WEST SUB-DISTRICT.								
		AGES.								All Ages.	AGES.								All Ages.
		0—	1—	5—	15—	25—	65—	75—			0—	1—	5—	15—	25—	65—	75—		
	ALL CAUSES ..	220	89	25	24	215	96	53	722		194	96	29	25	234	99	66	743	
1	Small Pox (Vaccinated) ..	..	..	..	..	1	..	..	1		..	..	..	..	..	..	..	..	..
2	Measles ..	..	5	21	2	..	..	..	28		5	20	3	..	..	..	..	..	28
3	Scarlet Fever ..	..	1	6	1	..	..	..	8		..	4	2	..	..	..	..	..	6
5	Epidemic Influenza ..	..	1	..	..	5	3	..	9		1	1	..	..	11	3	..	16	
6	Whooping Cough ..	..	2	1	..	..	..	..	3		2	2	..	..	..	..	..	..	4
7	Diphtheria ..	..	..	1	1	..	..	..	2		2	3	3	..	..	..	..	..	8
8	Enteric Fever ..	..	..	..	2	3	4	1	10		..	..	1	1	4	..	..	..	6
10	Diarrhœa, Dysentry ..	..	13	5	..	..	..	1	20		12	3	1	..	..	2	1	19	
11	Epidemic Enteritis ..	..	25	10	..	..	..	..	35		11	1	..	..	..	..	..	12	
18	Syphilis ..	..	3	..	..	1	1	..	5		..	..	..	..	1	..	..	1	
19	Gonorrhœa ..	..	..	..	..	1	..	..	1		..	..	..	..	..	..	..	..	
21	Erysipelas ..	..	1	..	..	1	..	1	3		..	..	..	..	..	1	..	1	
22	Puerperal Fever ..	..	..	..	..	..	..	..	..		..	..	..	..	5	..	..	5	
23	Pyæmia ..	..	..	1	..	1	1	..	3		1	..	..	1	1	..	..	3	
27	Rheumatic Fever ..	..	..	..	3	1	..	..	4		..	..	1	..	2	..	..	3	
29	Tuberculosis of Brain ..	..	1	4	1	1	..	..	7		3	3	1	1	..	..	..	8	
31	Phthisis ..	..	..	3	..	6	35	..	44		..	1	1	8	31	1	..	42	
32	Abdominal Tuberculosis ..	..	5	2	..	..	..	..	7		3	2	..	1	1	..	..	7	
34	Other Tuberculoses ..	..	2	1	1	..	6	..	10		..	..	1	1	2	..	..	4	
	Improper Feeding ..	..	2	..	..	..	..	..	2		..	..	..	..	..	..	..	..	
42	Chronic Alcoholism ..	..	..	..	..	3	..	..	3		..	..	..	..	1	..	..	1	
46	Gout ..	..	..	..	..	1	..	..	1		..	..	..	..	1	..	..	1	
47	Cancer ..	..	..	1	..	18	7	2	28		..	..	..	..	30	10	1	41	
48	Diabetes Mellitus ..	..	..	..	..	1	1	..	2		..	..	..	..	..	1	..	1	
51	Anæmia ..	..	..	..	1	1	..	..	2		..	..	..	..	..	..	..	..	
52	Lymphadenoma ..	..	..	..	..	1	..	..	1		..	..	..	..	1	..	..	1	
53	Premature Birth ..	..	18	..	..	..	..	..	18		21	..	..	..	..	..	..	21	
55	Debility at Birth ..	..	37	1	..	..	..	..	38		32	..	..	..	..	..	..	32	
56	Atelectasis ..	..	1	..	..	..	..	..	1		1	..	..	..	..	..	..	1	
57	Congenital Defects ..	..	..	..	..	..	..	..	..		4	1	..	..	..	..	..	5	
59	Atrophy, Debility, Marasmus ..	..	9	1	..	1	..	..	11		12	2	..	..	..	..	..	14	
60	Dentition ..	..	1	2	..	..	..	..	3		5	3	..	..	..	..	..	8	
61	Rickets ..	..	..	..	..	..	..	..	..		1	1	..	..	..	..	..	2	
62	Old Age, Senile Decay ..	..	..	..	..	4	17	32	53		..	..	..	..	1	16	33	50	
63	Convulsions..	..	14	2	..	..	..	..	16		8	..	1	..	..	..	..	9	
64	Meningitis ..	..	..	4	1	..	..	..	5		3	5	1	..	3	..	..	12	
65	Encephalitis ..	..	..	..	..	1	..	..	1		..	..	..	..	1	..	..	1	
66	Apoplexy ..	..	..	..	..	6	1	2	9		..	..	..	..	7	10	3	20	
67	Softening of Brain ..	..	..	..	..	..	1	..	1		..	..	..	..	..	..	..	..	
68	Hemiplegia ..	..	..	..	..	..	5	1	6		..	..	..	..	3	..	..	3	
70	Insanity ..	..	..	..	..	1	..	..	1		..	..	..	..	1	1	..	2	
72	Cerebral Tumour ..	..	..	..	1	..	..	..	1		..	..	..	..	..	..	..	..	
73	Epilepsy ..	..	..	..	1	3	1	..	5		..	..	..	..	1	..	..	1	
76	Paraplegia ..	..	..	..	..	..	2	..	2		..	..	..	..	1	..	..	1	
77	Other Nervous Diseases ..	..	..	1	..	3	2	..	6		..	..	2	..	3	..	2	7	
78	Otitis ..	..	..	1	..	..	..	..	1		1	..	..	..	..	..	..	1	

TABLE No. 7.—Continued.

No.	DISEASES.	EAST SUB-DISTRICT.									WEST SUB-DISTRICT.								
		AGES.								All Ages.	AGES.								All Ages.
		0—	1—	5—	15—	25—	65—	75—	0—		1—	5—	15—	25—	65—	75—			
81	Pericarditis .. ..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2		
82	Endocarditis .. ..	..	..	3	2	25	5	1	36	..	..	5	5	31	12	3	56		
86	Senile Gangrene .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	4		
87	Embolism, Thrombosis..	..	..	..	..	1	..	..	1	..	..	..	..	2	1	..	3		
90	Cardiac Failure .. ..	..	..	..	1	13	9	2	25	..	..	..	..	6	2	2	10		
	Cerebral Hæmorrhage ..	..	..	..	1	10	4	..	15	..	..	..	..	5	8	4	17		
91	Laryngitis .. ..	..	1	..	..	..	..	..	1	3	..	..	..	..	..	..	3		
94)	Bronchitis .. ..	..	35	6	..	13	21	3	78	26	12	..	..	20	13	10	81		
95)		..	19	10	5	1	14	3	1	53	13	14	3	1	23	1	55		
98	Pneumonia .. ..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..		
99	Emphysema, Asthma ..	..	..	..	..	2	1	1	4	..	..	..	..	..	1	..	1		
100	Pleurisy .. ..	..	..	..	..	2	1	1	4	..	..	..	..	..	1	..	1		
101	Other Diseases, Respiratory System	1	1	..	..	1	1	..	4	..	2	..	..	..	1	..	3		
104	Diseases of Oesophagus ..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	1		
105	Ulcer of Stomach and Duodenum ..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	5		
106	Other Diseases of Stomach ..	4	..	1	..	..	..	..	5	3	1	..	..	1	..	..	5		
107	Enteritis .. ..	7	..	..	..	1	2	1	11	11	3	..	..	1	..	..	15		
108	Appendicitis .. ..	..	..	2	..	1	..	..	3	..	..	..	1	1	..	..	2		
109	Obstruction of Intestine ..	..	..	..	..	2	1	1	4	1	..	..	1	1	1	..	4		
111	Cirrhosis of Liver .. ..	..	..	..	..	4	..	..	4	..	..	..	..	5	2	..	7		
112	Other Diseases of Liver ..	..	..	..	..	2	..	..	2	1	..	..	..	..	..	..	1		
113	Peritonitis .. ..	1	..	..	1	3	..	..	5	..	..	..	1	..	..	..	1		
114	Other Diseases, Digestive System ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1		
116	Nephritis .. ..	..	2	..	..	7	1	1	11	1	1	..	..	4	3	1	10		
118	Calculus .. ..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..		
119	Diseases of Bladder and Prostate ..	..	..	..	..	2	1	1	4	..	..	..	..	1	1	..	2		
120	Other Diseases, Urinary System ..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2		
122	Diseases of Ovaries .. ..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2		
123	Diseases of Uterus and Appendages ..	..	..	1	..	..	1	..	2	..	..	..	1	1	..	..	2		
126	Abortion, Miscarriage .. ..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..		
129	Flooding .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1		
132	Arthritis, Ostitis, Periostitis ..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	1		
137	Diseases Integumentary System ..	..	..	..	..	1	..	..	1	..	1	..	..	1	..	..	2		
	<i>Accidents and Negligence.</i>																		
139	In Vehicular Traffic .. ..	..	..	1	..	1	..	1	3	..	..	1	..	..	1	..	2		
145	Burns and Scalds .. ..	..	1	..	..	2	..	..	3	..	8	..	..	2	1	..	11		
147	Surgical Narcosis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1		
150	Drowning .. ..	..	..	1	..	..	..	..	1	..	1	1	..	..	..	..	2		
151	Suffocation, Overlaid in Bed ..	8	..	..	..	..	..	..	8	5	..	..	..	..	..	..	5		
153	Falls not specified .. ..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	1	3		
155	Otherwise .. ..	1	..	1	..	2	..	..	4	1	..	1	1	..	1	2	6		
156	Homicide, Murder .. ..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1		
	<i>Suicides.</i>																		
157	By Poison .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1		
159	By Hanging and Strangulation ..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	1		
160	By Drowning .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1		
162	By Cut or Stab .. ..	..	..	..	..	3	..	..	3	..	..	..	..	..	..	..	..		
165	By other and unspecified methods..	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	1		
168	Ill defined and unspecified causes ..	3	..	..	..	1	..	..	4	..	..	..	..	..	..	..	..		







TABLE No. 8.—Eleven Years' Annual Deaths, &c.

	1893	1894	1895	* 1896	1897	1898	1899	1900	1901	* 1902	1903	A
Small Pox	...	1	5	...	...	...	...	1	...	...	1	0.7
Measles...	...	21	73	8	49	19	2	76	48	21	56	35.7
Scarlet Fever	...	25	55	21	24	20	6	9	10	15	14	21.9
Whooping Cough	...	4	28	28	39	9	21	70	29	25	7	30.6
Diphtheria	...	5	33	55	58	43	21	10	13	18	10	34.0
Enteric Fever	...	23	17	37	21	20	44	39	17	15	16	25.1
Diarrhoea	...	161	62	131	188	174	132	117	109	72	86	128.1
Phthisis	...	135	133	89	103	105	111	110	98	102	86	109.6
Respiratory	...	425	387	361	324	319	374	444	248	334	285	365.9
65 years and upwards	...	351	293	309	285	315	367	383	302	344	314	332.4
Under 1 year	...	600	484	561	671	634	575	622	487	420	414	571.3
1—5 years	...	212	310	220	308	232	209	301	193	199	185	253.7
Under 1 year, per 1,000 births	...	206	167	185	219	202	184	207	162	137	141	188.6
Total Deaths	...	1853	1719	1740	1900	1845	1908	1993	1577	1575	1465	1817.9
Rate per 1,000	...	21.8	20.0	19.3	21.2	20.4	20.8	21.4	16.7	16.2	15.2	20.15
Zymotics	...	282	314	312	402	330	293	389	282	166	190	320.7
Rate per 1,000	...	3.3	3.7	3.5	4.5	3.6	3.2	4.2	3.0	1.7	2.0	3.57
Births ...	...	2902	2889	3023	3054	3140	3113	2997	3000	3073	2943	3021.4
Rate per 1,000	...	34.2	33.6	33.6	34.2	34.7	33.9	32.2	31.9	31.6	30.4	33.46

\* These years contain 53 weeks. A—Annual averages for the ten years preceding 1903.



**TABLE No. 9** (being Table I, L.G.B.)  
*Vital Statistics during 1903 and 22 previous years.*

YEAR.	Popula- tion estimated to middle of each year.	BIRTHS.		DEATHS BELONGING TO THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT.	Deaths of Non- residents registered in Public Institu- tions in the District	TOTAL DEATHS REGISTERED.	
		Number	Rate.	Under 1 year of Age.		At all Ages.				Number	Rate.
				Number	Rate per 1,000 Births regist'd	Number	Rate.				
1	2	3	4	5	6	12	13	9	10	7	8
*1881	75,932	2769	35.9	410	148	1552	20.1	272	96	1648	21.3
1882	76,596	2762	36.1	433	156	1634	21.4	266	79	1713	22.4
1883	77,266	2804	36.4	419	149	1542	20.0	329	101	1643	21.3
1884	77,942	2691	34.6	509	189	1734	22.3	287	123	1857	23.9
*1885	78,624	2806	35.1	390	138	1564	19.5	322	106	1670	20.9
1886	79,311	2803	35.4	490	174	1701	21.5	301	121	1822	23.0
1887	80,005	2675	33.5	469	175	1664	20.8	329	128	1792	22.4
1888	80,705	2674	33.2	445	166	1595	19.8	295	117	1712	21.2
1889	81,411	2666	32.8	479	179	1620	19.9	291	119	1739	21.4
*1890	82,124	2735	32.8	477	174	1772	21.2	364	136	1908	22.8
1891	82,932	2820	34.1	531	188	1914	23.1	351	122	2036	24.6
1892	84,022	2805	33.5	482	171	1716	20.5	308	125	1841	22.0
1893	85,126	2902	34.2	600	206	1853	21.8	398	137	1990	23.4
1894	86,244	2889	33.6	484	167	1719	20.0	392	124	1843	21.4
1895	87,377	3027	34.7	659	217	2069	23.7	404	138	2207	25.3
*1896	88,525	3023	33.6	561	185	1740	19.3	329	121	1861	20.7
1897	89,688	3054	34.2	671	219	1900	21.2	371	127	2027	22.7
1898	90,866	3140	34.7	634	202	1845	20.4	373	145	1990	22.0
1899	92,060	3113	33.9	575	184	1908	20.8	420	138	2044	22.3
1900	93,270	2997	32.2	622	207	1993	21.4	448	188	2181	23.5
1901	94,495	3000	31.9	487	162	1577	16.7	356	132	1709	18.1
*1902	95,736	3073	31.6	420	137	1575	16.2	392	148	1723	17.7
Averages for years 1893-1902	90,338	3021.8	33.46	571.3	188.6	1817.9	20.15	388.3	139.8	1957.5	21.71
1903	96,994	2943	30.4	414	141	1465	15.2	382	168	1633	16.9

\* These years contain 53 weeks.      Area of District in acres, 3,525.

CENSUS, 1901	{	Total Population at all ages .. .. .	94,187
		Number of Inhabited Houses .. .. .	19,285
		Average number of persons per house .. .. .	4.9

Institutions within the Borough receiving sick and infirm persons from without the Borough—the Wolverhampton and Staffordshire General Hospital; the Workhouse; the Wolverhampton Borough Hospital; the Wolverhampton Eye Infirmary; the Wolverhampton and District Hospital for Women; the Victoria Nursing Institution.





TABLE No. 10.

(Which includes Table II, L.G.B.)

EAST SUB-DISTRICT.										WEST SUB-DISTRICT.					
YEAR.	BIRTHS.			DEATHS.			Population estimated to middle of each Year. <i>a</i>	BIRTHS.			DEATHS.				
	Number. <i>b</i>	Rate.	Under 1 year of age		Number. <i>c</i>	Rate.		Number. <i>b</i>	Rate.	At all ages.		Number. <i>d</i>	Rate.		
			Number. <i>d</i>	Rate per 1,000 Births regist'd.						Number. <i>c</i>	Rate.				
1884	38,748	1382	35.8	275	25.4	981	39,146	1309	33.5	753	19.3	231	176		
*1885	38,791	1451	36.8	210	21.4	844	39,779	1355	33.5	720	17.8	178	131		
1886	38,834	1464	37.8	271	24.6	955	40,423	1339	33.2	746	18.5	218	163		
1887	38,876	1399	36.1	294	24.3	944	41,077	1276	31.2	720	17.5	171	136		
1888	38,919	1403	36.3	254	21.3	827	41,741	1266	30.4	768	18.5	118	149		
1889	38,962	1417	36.5	270	22.7	883	42,417	1249	29.5	737	17.4	203	167		
*1890	39,005	1403	35.4	270	24.6	977	43,103	1332	30.4	795	18.1	207	155		
1891	39,067	1507	38.7	310	26.3	1026	43,856	1313	30.0	888	20.3	220	168		
1892	39,190	1493	38.2	273	23.9	935	44,794	1312	29.4	781	17.5	209	159		
1893	39,312	1497	38.2	360	26.5	1040	45,752	1405	30.8	813	17.8	240	171		
1894	39,435	1487	37.8	276	24.8	975	46,730	1402	30.1	744	16.0	208	148		
1895	39,559	1505	38.2	333	28.0	1106	47,729	1522	32.0	963	20.2	276	191		
*1896	39,683	1595	39.6	310	22.3	899	48,750	1428	28.8	841	17.0	251	176		
1897	39,807	1543	38.9	363	25.7	1022	49,792	1511	30.4	878	17.7	308	204		
1898	39,931	1561	39.2	354	23.9	951	50,856	1579	31.2	894	17.6	280	177		
1899	40,057	1508	37.8	310	25.8	1030	51,944	1605	31.0	878	16.9	265	165		
1900	40,182	1404	35.1	318	25.7	1030	53,054	1593	30.1	963	18.2	304	191		
1901	40,307	1408	35.5	271	19.9	800	54,188	1592	29.5	777	14.4	216	136		
*1902	40,434	1434	34.9	235	19.9	818	55,347	1639	29.2	757	13.5	185	113		
Averages for years 1893-1902	39,771	1494.2	37.52	318.0	24.25	967.1	50,414	1527.6	30.31	850.8	16.93	253.3	166.2		
1903	40,654	1337	33.0	220	17.8	722	56,550	1606	28.5	743	13.2	194	121		
Census, 1901.															
Population ..		..	..	..	..	..	..	..	..	..	..	..	..	53,491	
Number of Inhabited Houses..		..	..	..	..	..	..	..	..	..	..	..	..	11,293	
Number of Persons per house		..	..	..	..	..	..	..	..	..	..	..	..	4.7	

At the beginning of 1903 the dividing line between the Sub-Districts was altered; the alteration affects the 1901 census by transferring 418 from the West population to the East, and so far vitiates the comparison with previous years. Another result is that until the next census the estimated East population will be a diminishing one.

\* These years contain 53 weeks.





Name of Town.	Population.	Birth-rate.	Death-rate.	ZYMOTIC DEATH RATE.								Deaths under one year to 1,000 Births.
				Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Total.	
LONDON	4,613,812	28·4	15·7	—	0·45	0·08	0·16	0·35	0·09	0·64	1·77	131
CROYDON	141,157	26·3	11·8	0·01	0·18	0·01	0·12	0·44	0·04	0·28	1·08	108
WEST HAM	281,894	33·7	15·3	—	0·49	0·07	0·26	0·59	0·13	1·11	2·65	146
BRIGHTON	125,405	24·3	14·3	—	0·05	—	0·26	0·10	0·04	0·40	0·85	114
PORTSMOUTH	194,960	27·9	14·7	—	0·09	0·14	0·39	0·17	0·12	0·59	1·50	114
NORWICH	114,351	27·9	15·2	—	0·01	0·13	0·11	0·07	0·06	0·75	1·13	150
PLYMOUTH	112,022	25·5	16·5	—	0·04	0·13	0·13	0·24	0·13	0·49	1·16	144
BRISTOL	338,895	27·4	14·3	0·01	0·03	0·15	0·35	0·20	0·06	0·28	1·08	116
<b>WOLVERHAMPTON</b>	<b>96,947</b>	<b>30·5</b>	<b>15·5</b>	—	<b>0·56</b>	<b>0·16</b>	<b>0·09</b>	<b>0·07</b>	<b>0·19</b>	<b>0·90</b>	<b>1·97</b>	<b>141</b>
BIRMINGHAM	533,039	31·8	17·8	0·02	0·36	0·27	0·26	0·17	0·13	1·11	2·32	159
LEICESTER	220,272	27·4	14·2	0·10	0·34	0·07	0·13	0·16	0·06	0·60	1·46	160
NOTTINGHAM	245,985	28·3	16·9	0·01	0·39	0·14	0·26	0·39	0·14	0·68	2·01	165
DERBY	118,707	27·2	13·6	0·02	0·04	0·07	0·03	0·27	0·06	0·38	0·87	128
BIRKENHEAD	113,598	30·8	16·8	0·04	0·08	0·18	0·10	0·36	0·13	1·18	2·07	156
LIVERPOOL	716,810	33·4	20·5	0·19	0·18	0·27	0·23	0·43	0·23	0·98	2·51	159
BOSTON	173,401	27·0	17·5	0·02	0·27	0·34	0·21	0·05	0·20	0·90	1·99	152
MANCHESTER	553,486	32·1	19·7	0·05	0·63	0·17	0·24	0·39	0·17	0·89	2·54	169
SALFORD	226,480	32·3	19·0	0·03	0·58	0·25	0·38	0·42	0·22	0·98	2·86	167
OLDHAM	138,786	25·6	18·6	0·17	0·27	0·22	0·39	0·78	0·09	0·42	2·34	160
BURNLEY	99,469	27·2	19·2	0·10	0·17	0·24	0·20	0·56	0·15	1·40	2·82	217
BLACKBURN	131,218	25·1	15·7	0·02	0·41	0·11	0·20	0·10	0·13	0·52	1·49	157
PRESTON	114,404	30·4	18·7	0·02	0·90	0·13	0·18	0·54	0·29	1·03	3·09	161
HUDDERSFIELD	94,963	23·8	16·7	0·02	—	0·16	0·15	0·17	0·03	0·26	0·84	120
HALIFAX	106,754	21·1	15·0	0·04	0·06	0·07	0·09	0·18	0·12	0·16	0·72	122
BRADFORD	283,412	23·3	16·4	0·04	0·05	0·10	0·19	0·32	0·15	0·51	1·36	148
LEEDS	443,559	29·4	16·6	0·05	0·28	0·25	0·15	0·27	0·13	0·63	1·76	153
SHEFFIELD	425,528	33·2	18·6	0·01	0·79	0·22	0·09	0·61	0·11	1·27	3·10	182
HULL	249,639	31·3	16·9	0·02	0·42	0·03	0·31	0·09	0·07	1·25	2·19	162
SUNDERLAND	149,572	35·1	19·9	0·02	0·81	0·23	0·21	0·34	0·16	0·60	2·37	157
GATESHEAD	115,531	35·8	16·7	0·16	0·03	0·32	0·10	0·31	0·04	0·91	1·87	159
NEWCASTLE	222,241	31·1	19·2	0·04	0·05	0·12	0·17	0·23	0·03	0·58	1·22	165
CARDIFF	172,598	30·5	14·0	0·02	0·16	0·17	0·20	0·22	0·09	0·46	1·32	122
SWANSEA	95,489	32·0	18·6	—	1·00	0·13	0·22	0·35	0·12	0·48	2·30	165



County Borough



of Wolverhampton

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# REPORT

OF THE

## Chief Sanitary Inspector

JOHN PEERS, R.P., Assoc. San. Inst.,

UPON THE

Work of the Inspection Department

FOR THE YEAR 1903.

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PRINTED BY ORDER OF THE HEALTH COMMITTEE.





# REPORT OF THE CHIEF SANITARY INSPECTOR, FOR THE YEAR 1903.

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HEALTH OFFICES,

TOWN HALL,

WOLVERHAMPTON.

*May, 1904.*

*To the Chairman and Members of the Health Committee.*

Gentlemen,

I have the honour to present a report of the work accomplished by your Inspectorial Staff during the year 1903.

This will be my fifth Annual Report here.

Precise details of the actual operations are set out in the most concise form possible in Tables A, B, C, D, E, and F appended hereto. Table D is a new addition and deals exclusively with the work of the sub-inspector engaged in administering the provisions of the Factory and Workshop Act 1901, as far as we are affected thereby.

In every other respect the tables represent a summary of the four quarterly reports submitted in their due order, and though the figures given permit of a ready estimate being formed of the vast amount of work accomplished, a few explanations are perhaps desirable by way of comparison or comment.

There is also attached a copy of the report required of us by law to be submitted to the Local Government Board, showing the work executed within the Borough, in the administration of the provisions of the Canal Boats Acts 1877—1884, and the Regulations of the Local Government Board made thereunder.

There is also given a concise summary of your Veterinary Inspector's Reports.

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## GENERAL SANITARY WORK.

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### BRIEF COMMENTS UPON THE TABLES.

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#### COMPLAINTS.

(Table A).

622 written complaints were received relative to Sanitary defects.

Year by year these complaints show steady increases, thus confirming the impression that public interest in the matter of details is surely, if only slowly, growing.

The numbers for the past four years have been 455, 536, 580, and 622 respectively.

219 complaints have been recorded in respect of closet pans or ash receptacles. This is the smallest number of this form of complaint ever recorded and deserves special mention. Moreover, there have been far less requests made than ever before.

During the past four years the reduction shows a decrease of 50 %; a most desirable feature to be recorded to the credit of those responsible at the Team Department.

It is, however, much to be deplored that the insanitary practise of tipping ashpit refuse on the road surfaces is still followed, notwithstanding that numerous grave complaints arise, and rightly so, in consequence. It is difficult to understand why this practise is allowed to prevail where portable ash receptacles have been provided.



## INSPECTIONS.

(Table A).

40,980 Inspections, re-inspections, &c., have been made by the district inspectors, and in addition the workshop sub-inspector has made 2,276,—total 43,256, against 44,066 during 1902,—decrease 810. The fact that we were without one district inspector practically two months would more than account for this small reduction.

The special inspections made by the Medical Officer of Health and myself are not recorded in this table. These latter inspections resulted in the closure, by Order of the Council, of 41 cottages as unfit for human habitation ; six of these cottages were, however, subsequently re-opened upon satisfactory structural alterations being executed thereto.

## SANITARY DEFECTS REPORTED.

(Table B).

5794 sanitary defects were reported by the District Inspectors, and 580 by the workshop sub-inspector.—Total 6374.

This is the highest number recorded since 1899 and would appear to show that increased vigilance has been displayed or that more attention has been given to details than hitherto.

The particular items contributing to this result are those numbered 2, 15, 17, 19, 20, 24, 25, 26, 28, 29, 30 and 31 in the schedule. Defective rain-water down-pipes, guttering and roofs, and the defective paving and foul condition of out-premises generally are the most prominent features.

## NOTICES.

(Table B).

4,642 Notices in connection with district work and 384 relative to workshops have been issued.—Total 5,026.

This shows a large increase in the amount of clerical work over last year and is nearly identical with the number of Notices served during 1901.

Of this total (5,026), 3,590 were intimation (Preliminary), and 1,436 were Statutory Notices.

904 of the former, and 230 of the latter, were issued against occupiers.

## IMPROVEMENTS.

(Table C).

7,802 Improvements have been recorded. 7,184 by the district inspectors and 618 by the workshop sub-inspector.

This is by far the best record yet attained.

The total premises sharing in these improvements number 4,394, of which 357 were workshops.

Not since 1899 have so many premises been improved in any one year.

Perhaps it is not too much to say that in estimating the value of a sanitary inspector to the public, a comparison must be made between the inspections he makes and the improvements he secures. (Tables A, B, C, and D permit of a ready comparison being made in this connection here). In making the comparison charge against him the apparent amount of friction he creates in accomplishing his work, and, very largely the factors needful to "pass judgment" are at hand.

In comparing the figures in the table with those of past years it will be found that the important work in connection with "drainage systems re-constructed, improved, &c.," has been well maintained.

Privy middens have been only seldom met with but wherever found are immediately dealt with provided the necessary sewer and water supply are available.

In connection with the conversion of privies into w.c.'s or w.w.c.'s, only slow progress is being made (numerous reasons exist for this, unfortunately), but where conversions have occurred w.c.'s appear to have been largely preferred to w.w.c.'s.

76 w.c.'s have been newly constructed and 262 improved ; these figures being quite consistent with those recorded during the past few years.

In connection with ash-pits a most exceptional increase of energy appears to have been expended, over 1,000 covered portable galvanized-iron ash-bins having been provided, and 340 foul open ash-pits altered to bins. This is a highly desirable feature ; nothing approaching these figures never before been recorded.

Houses repaired, spouting, etc., provided, and out premises lime-washed or repaired, also show large increases over last year's figures.

## WORKSHOPS.

(Table D).

For the first time a separate table appears dealing with the work of the workshop sub-inspector. Last year this inspector was mostly engaged procuring the cubic capacity of the workrooms within the borough, and entering into special registers full details of the sanitary condition existing in and around workplaces.

The workshops registered number 1,031, comprising 113 different varieties of business. The following are a few :—

Boot and Shoe Makers or Repairers	..	126
Bakehouses	.. ..	104
Tailors	.. ..	100
Dress Makers	.. ..	95
Lock Makers	.. ..	86
Key Makers	.. ..	35
Milliners	.. ..	30
Cabinet Makers and Upholsterers	..	25
Carpenters	.. ..	25
Japanners and Tin-plate Workers	..	23
Shoeing Smiths	.. ..	22
Watch Makers	.. ..	21
Spectacle Frame Makers	.. ..	21
Plumbers	.. ..	18
Cycle Makers and Repairers	.. ..	16
File Cutters	.. ..	13
Wheelwrights	.. ..	13
Builders	.. ..	12
Coopers	.. ..	12
Painters and Sign Writers	.. ..	11
Saddlers	.. ..	10
Etc., etc., etc.		



In connection with certain classes of work, one important feature of the Factory and Workshop Act, 1901, is that of imposing upon occupiers the duty of furnishing the Sanitary Authority with lists of all outworkers employed. These lists are required to be furnished on or before the first day of February and August in each year, and hitherto had to be forwarded to H.M. Inspector of Factories.

With a view to acquainting occupiers of the altered conditions, posters were affixed conspicuously throughout the borough, and in all known cases a circular was despatched announcing the requirement, but notwithstanding these efforts only moderate response resulted, and it would appear that some considerable difficulty will be experienced in this connection half-yearly. In many large towns, severe action has already had to be taken to procure compliance with this requirement.

Among the sanitary defects reported in connection with workshops, dirty conditions of walls and ceilings figure very largely, and next in order of merit comes foul or offensive w.c.'s or w.w.c.'s.

Inadequate accommodation in the way of sanitary conveniences, having regard to the separation of the sexes, also appears to have been a somewhat common fault.

A reference to the section of the table dealing with "Improvements made in compliance with Notices" will show that very much good work has been accomplished in this direction; 618 improvements having been secured in connection with 357 premises.

Of the 304 Intimation (Preliminary) Notices served, and the 80 Statutory Notices, 215 of the former and 17 of the latter were issued against occupiers.

Bakehouses.—593 visits were paid to the various bakehouses within the borough, the number of which is returned as 104.

Notwithstanding that special circular letters were delivered to each occupier during 1902, pointing out the requirements of the law as regards the systematic lime-washing of all the inside walls and all the ceilings or tops of a bakehouse, much difficulty has been experienced in a few cases, and even now there are a few who resent this requirement.

Slaughter-Houses.—2,137 visits were paid to the 51 slaughter-houses licensed for use within the borough at the end of the year. This is a slight reduction on the number of visits paid during 1902, when the total reached was 2,318.

This year's figures are almost identical with those recorded in 1901.

Two applications for the transfer of licenses were made and granted. No new licenses were granted.

On the whole the premises appear to have been reasonably well kept except in one case where gross negligence was discovered and resulted in the license being refused.

In October a special report was presented in regard to slaughter-houses generally, but to four in particular, and the result was that two licenses were not further renewed, and special cautionary letters forwarded to six others regarding the unsuitability of their premises. Subsequently, however, one of the two licenses refused was granted for another year on the understanding that no application would be made for renewal in the future. Special circular letters were addressed, by Order of the Health Committee, to every license holder relative to their individual use only of the premises.

One prosecution ensued for slaughtering on unlicensed premises, the defendant being fined £1 and costs 8/-, or 14 days' imprisonment.

Cow Sheds, Dairies and Milk Shops.—126 visits to the 18 borough cow houses, and 824 to the dairies and milk shops, have been made. The number of the latter premises are returned at 262.

In February a special enquiry was made relative to the sources of the borough milk supply, when it transpired that the approximate weekly supply of milk arriving was equal to 12,261 gallons, and the localities supplying are:—Acton Bridge, Autherley, Baschurch, Betley Road, Billbrook, Bushbury, Codsall, Dudley, Eccleshill, Gnosall, Great Bridgeford, Heath Town, Haughton, Leaton, Leighford, Lower Penn, Low Hill, Market Drayton, Norton Bridge, Newport (Salop), Oaken, Palmers Cross, Pattingham, Penkridge, Penn, Penn Fields, Peplow, Pipe Gate, Presthope, Rockley, Sedgley, Seisdon, Sharesill, Shifnall, Stafford, Stone, Tettenhall, Walton Bank, and Wergs.

*Food Inspection.*—(Table E.)—3 tons, 10 cwts., 2 qrs. of diseased or unsound or unwholesome “food stuff” was destroyed during the year, and upon reference to the table it will be observed that the amount voluntarily surrendered and the quantity seized is nearly equal, as, indeed was the case last year.

During the past four years the quantity of food stuff dealt with has steadily increased, the approximate weights being 48, 49, 62, and 70 cwts. respectively.

During 1903, 21 Justices’ Orders in connection with meat seizures were obtained, and prosecutions ensued in two cases. In one case the defendant was fined £1, and costs £1 8s., and in the other £3 and costs 7/- or one month.

*Prosecutions.*—(Table F).—Legal proceedings were rendered necessary in 20 cases in connection with the work of the Department during the year, and 35 attendances at the Court entailed.

This is the least number yet recorded in any one year.

*Canal Boats.*—Appended hereto is a copy of the Annual Report submitted to the Local Government Board, showing the work executed in the borough, under the Canal Boats Acts.

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## CANAL BOATS.

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*The following is a copy of the Report submitted to the Local Government Board (as required by Section III Canal Boats Act, 1884) showing the work executed under the provisions of the Canal Boats Acts.*

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CANAL BOATS ACTS, 1877—1884.

## BOROUGH OF WOLVERHAMPTON REPORT FOR THE YEAR 1903

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1. The duties of Canal Boat Examination and Inspection in this borough are relegated to the Chief Sanitary Inspector and his Assistants.



Name and address of Chief Inspector,

JOHN PEERS,

Health Offices,

Town Hall,

Wolverhampton.

No separate remuneration is specified for this work.

2. 237 boats have been inspected during the year. With regard to the condition of the boats, the fact that the proportion, one boat out of every three inspected was found to be infringing the Acts or Regulations, does not speak well for their condition generally. Nothing appears to have transpired to call for special comment as regards the occupants of the boats.

3. Infringements discovered and dealt with :—

(a)	Registration .. ..	0
(b)	Notification of change of Master ..	0
(c)	Certificates .. ..	22
(d)	Marking .. ..	3
(e)	Overcrowding .. ..	8
(f)	Separation of the Sexes .. ..	5
(g)	Cleanliness .. ..	16
(h)	Ventilation .. ..	0
(i)	Painting .. ..	24
(j)	Provision of Water Cask .. ..	12
(k)	Removal of Bilge Water .. ..	1
(l)	Notification of Infectious Disease ..	0
(m)	Admittance of Inspector .. ..	0
(n)	Cabins Damp or Leaking.. ..	19
Total ..		110

4. No legal proceedings have been instituted.

5. All infringements discovered have been dealt with by means of the usual Complaint Notes or Notices.

6. Cases of Infectious Diseases have been notified as follows :—

Date.	Boat	Registered Number and Place.			Nature of Disease.
August 21st	Celtic	495	Chester .. ..	..	Scarlet Fever
Novem. 19th	Clyde	317	Birmingham .. ..	..	Scarlet Fever

The patient from the boat "Celtic" was removed from the Cabin to the private residence of the parents (adjoining the canal) and there isolated.

The patient from boat "Clyde" was removed to our Borough Infectious Hospital.

7. Disinfection of Canal Boat Cabins follow immediately upon removal of the patients, and the boats allowed to continue their journeys.

8. 903 boats have been entered in the register since the year 1878.

9. 6 boats have been registered during 1903. Two of these were new boats, and four re-registrations of old boats.

JOHN PEERS,

Chief Sanitary Inspector and Examining Officer  
under the Canal Boats Acts.

## SUMMARY OF VETERINARY INSPECTOR'S REPORTS.

The number of Cow-sheds in the Borough is 15 and the average number of Cows found occupying them per quarter was 158.

During the past year over 700 inspections have been made :—

15 Cows have been condemned as Tuberculous.

5 „ „ „ „ for Infected Udder.

9 „ „ „ „ for Chronic Mammitis.

Considering the exceptionally wet weather experience during the past year the general condition of the Cows has been satisfactory, very few cases of respiratory disease or parturient fever being recorded.

The result of the 12 months' inspection shews that by frequent and repeated visits to the dairies, the owners are constantly reminded of the importance of not buying "screws" or cheap Cows (to replace others gone dry) a practise strongly to be condemned as it is chiefly by this source that disease is being continually brought into the Cowshed.

I have called owners attention to the quality and quantity of the food, also to the necessity of keeping the animals clean, especially the Udders and hind quarters free from dung, &c., factors which not only add to the comfort and better condition of the Cows, but which must materially affect the supply of milk.

(Signed) JOHN E. CARTWRIGHT, M.R.C.V.S.,  
Veterinary Inspector.





TABLE A.

## Public Complaints or Requests received and dealt with.

Complaints in respect of :—Alleged or Suspected Sanitary Defects	..	622
"                    "                    Closet Pans or Ash Receptacles	..	219
Requests                    "                    "                    "                    "	..	1025
TOTAL		.. 1866

## Summary of District Sanitary Inspectors' Routine Work.

	DISTRICTS.				Total for Borough
	N.W.	S.W.	N.E.	S.E.	
Investigations made into Notifiable In- fectious Diseases .. .. .	148	232	100	220	700
Investigations made into other Infectious Diseases .. .. .	331	300	221	130	952
Number of Houses inspected .. ..	427	682	305	531	1945
Re-inspection, Calls made, &c. .. ..	5380	3479	3041	4614	16514
Inspections of— † Workshops .. ..	487	286	40	89	902
"    Bakehouses .. ..	93	259	144	97	593
"    Cowhouses .. ..	54	57	2	13	126
"    Dairies and Milkshops .. ..	291	226	186	121	824
"    Slaughter-houses .. ..	379	524	443	791	2137
"    Stables and Stable Yards ..	581	605	38	535	1759
"    Courts, Outdoor Closets, Drains, &c. .. ..	1817	2618	3468	1791	9694
"    Piggeries, Fowls, and other Animals kept .. ..	564	624	110	369	1667
"    Meat and Food .. ..	294	560	427	1046	2327
Ashpits reported for Clearing .. ..	53	58	55	97	263
Dangerous Buildings, Street Gullies, &c., reported .. ..	62	35	99	79	275
Waste of Water .. ..	21	40	77	59	197
Miscellaneous .. ..	2	5	45	23	75
TOTAL INSPECTIONS, &c... ..	10984	10590	8801	10605	40980

† See table D showing Summary of Workshop Inspector's work.





**TABLE B.**  
**Sanitary Defects Reported by District Sanitary Inspectors.**

Sanitary Defects.						DISTRICTS.				Total for Borough
						N.W.	S.W.	N.E.	S.E.	
1.	The house or part of the house in a dirty condition ..					39	54	53	101	247
2.	" " " " damp condition ..					110	80	99	103	392
3.	" " " " dilapidated condi- tion ..					9	13	16	41	79
4.	" " " " being overcrowded ..					5	8	20	34	67
5.	The water closet or waste water closet being foul or offensive .. ..					49	39	49	50	187
6.	" " being without a water supply, or with a defective flush of water ..					12	4	4	3	23
7.	" " being improperly constructed ..					12	1	1	1	15
8.	" " or waste-water closet being stopped or partially stopped .. ..					25	46	46	46	163
9.	Urinal being improperly constructed or improperly drained .. ..					9	9	4	5	27
10.	Closet accommodation being insufficient .. ..					3	2	3	2	10
11.	The pail closet being improperly situated .. ..					12	11	28	12	63
12.	The privy, midden, or cesspit being a nuisance ..					6	5	1	4	16
13.	The soil pipe defective .. ..					8	4	2	—	14
14.	" " unventilated or ill-ventilated ..					8	2	2	1	13
15.	The bath or lavatory waste pipe being improperly drained .. ..					—	2	19	—	21
16.	The sink being improperly constructed or drained ..					55	111	57	25	248
17.	The premises being without proper drainage ..					37	23	83	15	158
18.	The drain inlet untrapped or improperly trapped ..					24	17	12	1	54
19.	The drain foul .. ..					45	101	131	102	379
20.	" choked or stopped .. ..					43	96	97	99	335
21.	The drainage being defective .. ..					68	33	38	10	149
22.	The drain being unventilated or ill-ventilated ..					21	6	7	1	35
23.	The rain-water pipe being in direct communication with drain .. ..					1	2	3	1	7
24.	The rain-water pipe being defective .. ..					45	38	73	35	191
25.	The guttering being defective .. ..					82	44	135	62	323
26.	The roof of house being defective .. ..					15	46	50	49	160
27.	The soft-water cistern being so foul as to be a nuisance					4	4	6	2	16
28.	The floor of yard, or court, or closet being in an in- sanitary condition for want of proper paving ..					44	36	47	28	155
29.	The walls or floors of outbuildings, (yard, court, wash- house, or closet) being foul .. ..					121	92	244	193	650
30.	The outbuildings being dilapidated .. ..					7	56	93	41	197
31.	The ash bin being defective, or ashpit foul or defective					170	109	136	56	471
32.	The premises being without proper or sufficient ash accommodation .. ..					68	80	79	44	271
33.	The premises being without a proper manure receptacle					3	9	8	1	21
34.	An animal or animals kept .. ..					33	36	46	20	135
35.	An accumulation of offensive matter .. ..					37	38	44	43	162
36.	The urinal being improperly constructed, drained, or offensive .. ..					6	20	4	8	38
	Miscellaneous .. ..					34	46	143	79	302
TOTALS .. ..						1270	1323	1883	1318	5794

**Notices served dealing with the above-named Sanitary Defects.**

Form of Notice.						DISTRICTS.				Total for Borough
						N.W.	S.W.	N.E.	S.E.	
Intimation (Preliminary) .. ..						686	716	1073	811	3286
Statutory .. ..						360	252	496	248	1356
TOTALS .. ..						1046	968	1569	1059	4642

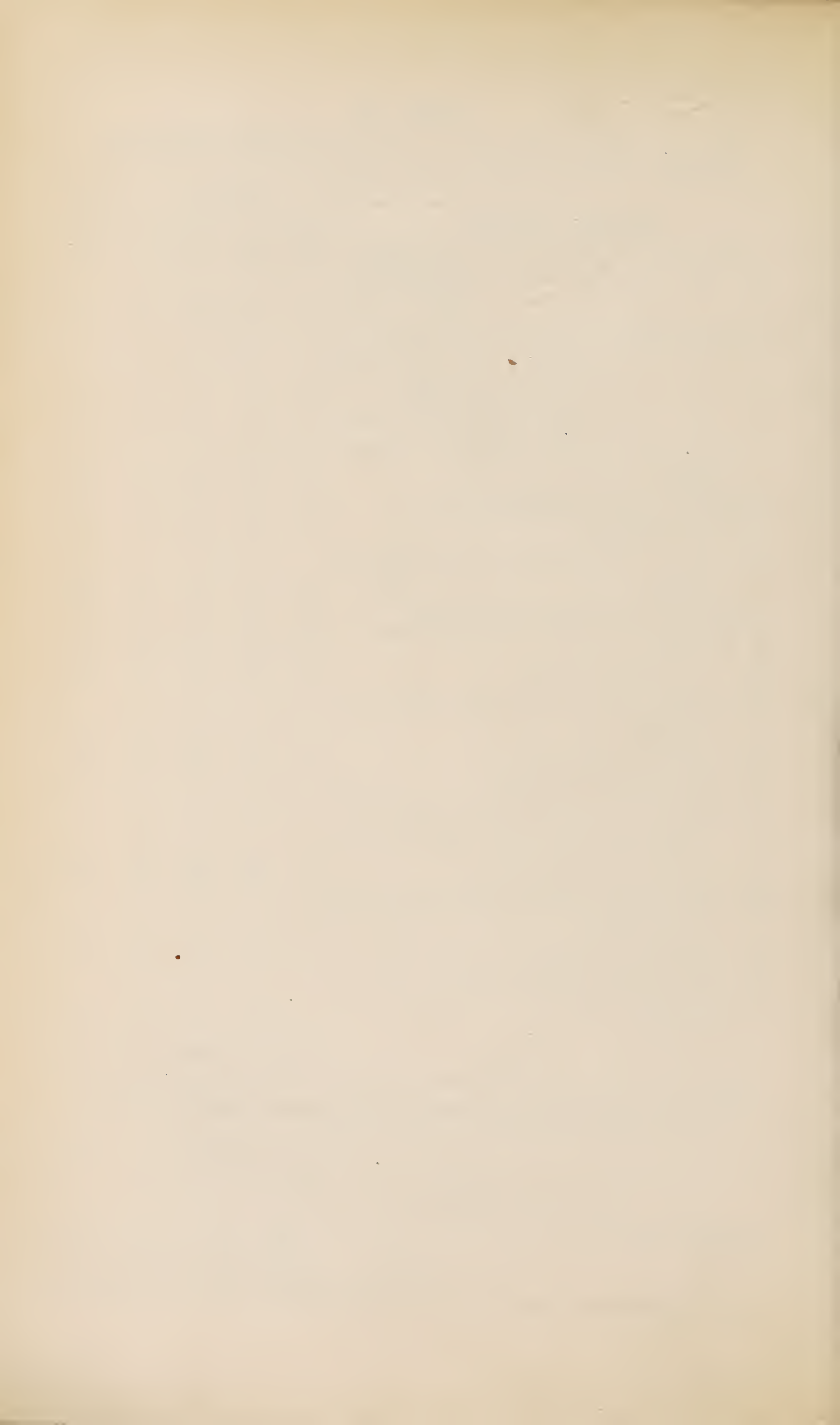


TABLE C.

## Improvements made in Compliance with Notices served.

		DISTRICTS.				Total for Borough
		N.W.	S.W.	N.E.	S.E.	
Drains	{ Reconstructed.. ..	64	71	115	22	272
	{ Improved or Repaired .. ..	143	233	153	105	634
	{ Traps fixed .. ..	281	215	270	37	803
Cesspools	Abolished .. ..	—	24	—	—	24
Privy Middens	Ditto .. ..	4	5	1	2	12
Privies	{ Waste Water Closets.. ..	4	4	18	—	26
Altered to	{ Water Closets .. ..	23	7	5	5	40
Water Closets	{ Constructed .. ..	43	25	3	5	76
	{ Improved or Repaired .. ..	108	76	32	46	262
Ashpits	{ Ash Bins provided .. ..	286	291	244	158	979
	{ Altered to Bin .. ..	89	130	80	33	332
	{ Improved or Repaired .. ..	13	11	5	1	30
Courts, Yards, and Channels	{ Relaid or Repaved .. ..	134	176	41	50	410
Water	{ Wells Closed .. ..	1	—	—	1	2
	{ Water laid on .. ..	—	1	—	—	1
	{ Soft Water Cisterns Cleansed .. ..	37	26	2	3	68
Houses	{ Cleansed or Limewashed .. ..	34	88	51	55	228
	{ Generally Repaired .. ..	28	193	65	61	347
	{ Lighted or Ventilated .. ..	1	3	14	1	19
	{ Spouting, etc., provided to .. ..	161	144	177	67	549
Overcrowding Abated	.. ..	5	14	12	32	63
Out-door Premises	Limewashed or Repaired .. ..	243	288	328	287	1146
Animals Removed	.. ..	39	42	28	23	132
Offensive Accumulations	Removed .. ..	74	197	56	56	383
Other Amendments or Nuisances	Abated.. ..	269	1	55	30	355
TOTAL IMPROVEMENTS .. ..		2084	2265	1755	1080	7184
TOTAL PREMISES IMPROVED .. ..		1066	1301	961	709	4037

## Disinfection.

Number of houses disinfected	...	...	...	...	394
„ Canal Boat Cabins disinfected	...	...	...	...	2
„ Articles disinfected in Steam Disinfector	...	...	...	...	8074
„ „ „ by Sulphurous Fumes	...	...	...	...	451





(From April to December, 1903).

Complaints received and dealt with, from H.M. Inspector of Factories	..	4
" " " " from other sources .. "	..	7
	TOTAL	11

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Workshops Inspected ..	..	479
Re-inspections, calls made, etc. ..	..	1797
	TOTAL	2276

### Sanitary Defects Reported.

<p>1. The Workshop being in a dirty condition 189</p> <p>2.   "       "       "       damp condition 20</p> <p>3.   "       "       "       dilapidated con- dition or without sufficient light or ventilation .. .. . 8</p> <p>4. The Workshop being overcrowded .. 15</p> <p>5. The water closet or waste water closet being foul or offensive .. .. 42</p> <p>6. The water closet being without a water supply, or with a defective flush of water 14</p> <p>7. The water closet being improperly con- structed .. .. . 4</p> <p>8. The water closet or waste water closet being stopped or partially stopped .. 7</p> <p>9. Urinal being improperly constructed or improperly drained .. .. . 8</p> <p>10. Closet accommodation being insufficient or unsuitable .. .. . 32</p> <p>11. The pail closet being improperly situated 7</p> <p>12. The privy, midden, or cesspit being a nuisance .. .. . 8</p> <p>13. The soil pipe defective .. .. . 1</p> <p>14.   "       "       unventilated or ill- ventilated .. .. . 1</p> <p>15. The bath or lavatory being improperly drained .. .. . —</p> <p>16. The sink being improperly constructed or drained .. .. . 14</p> <p>17. The premises being improperly drained or being insufficiently drained .. 4</p> <p>18. The drain inlet untrapped or improperly trapped .. .. . 24</p>	<p>Brought forward 348</p> <p>19. The drain or drain inlet being foul .. 5</p> <p>20.   "       "       being stopped .. .. 5</p> <p>21. The drainage being defective .. 12</p> <p>22. The drain being unventilated or ill- ventilated .. .. . 1</p> <p>23. The rain-water pipe being in direct com- muciation with drain .. .. . 1</p> <p>24. The rain-water pipe being defective or stopped .. .. . 6</p> <p>25. The guttering being defective or eaves being without guttering .. .. 21</p> <p>26. The roof of workshop being defective .. 10</p> <p>27. The soft-water cistern being foul .. 2</p> <p>28. The floor of the workshop or yard being in an insanitary condition for want of proper paving .. .. . 26</p> <p>29. The walls or floors of outbuildings (yard, court, washhouse, or closet) being foul 24</p> <p>30. The outbuildings being dilapidated .. 8</p> <p>31. The ash receptacle being defective or foul 7</p> <p>32. The premises being without proper or sufficient ash accommodation .. 26</p> <p>33. The premises being without a proper manure receptacle .. .. . 10</p> <p>34. An animal or animals kept.. .. . 6</p> <p>35. An accumulation of offensive matter .. 24</p> <p>36. The urinal being foul or offensive .. 7</p> <p>Miscellaneous .. .. . 31</p>
<hr/> <p>Carried forward 348</p>	<hr/> <p>TOTAL .. 580</p>

**Notices Served, dealing with the above-named Defects.**

Intimation (Preliminary) Notices	..	304
Statutory Notices..	..	80
TOTAL	..	<u>384</u>

**Improvements made in compliance with the aforesaid Notices.**

			Brought forward	275
Drains	{ Reconstructed ..	.. 23	Water { Wells Closed ..	.. —
	{ Improved and Repaired ..	.. 19	{ Water laid on ..	.. —
	{ Traps fixed ..	.. 108	{ Soft Water Cisterns Cleansed ..	.. —
Cesspools	Abolished ..	.. 1		
Privy Middens	ditto ..	.. —		
Privies	{ Waste Water Closets ..	.. 5	Workshops { Cleansed or Limewashed ..	.. 127
Altered to	{ Water Closets ..	.. 33	{ Generally Repaired ..	.. 21
Water Closets	{ Constructed ..	.. 12	{ Lighted or Ventilated ..	.. 4
	{ Improved or Repaired ..	.. 28	{ Spouting, etc., provided to ..	.. 20
Ashpits	{ Ash Bins provided ..	.. 25	Overcrowding Abated ..	.. 17
	{ Altered to Bin ..	.. 8	Outdoor Premises Limewashed or Repaired	22
	{ Improved or Repaired ..	.. —	Animals Removed ..	.. 7
Workshop and other Surfaces	{ Relaid or Repaved ..	.. 13	Offensive Accumulations Removed ..	.. 18
			Other Amendments or Nuisances Abated	.. 107
			TOTAL IMPROVEMENTS	.. 618
			TOTAL PREMISES IMPROVED	.. 357





TABLE E.

## Unwholesome Food Destroyed.

VOLUNTARILY SURRENDERED AND DESTROYED.			CONDEMNED AND DESTROYED BY JUSTICE'S ORDER.		
NATURE OF ARTICLE.		WHY DESTROYED.	NATURE OF ARTICLE.		WHY DESTROYED.
Carcase of 1 Cow	..	Diseased	Carcases of 2 Cows	..	Diseased
„ 1 Calf	..	Suffocated	„ 1 Calf	..	„
„ 9 Sheep	..	„	„ 3 Sheep	..	Suffocated
„ 1 „	..	Emaciated	„ 8 Pigs	..	Diseased
„ 2 „	..	Bruised	„ 15 „	..	Unsound
„ 1 „	..	Unsound	Internal Organs of 15 Pigs	..	„
„ 1 Lamb	..	Suffocated	Forequarters and Flank of Cow	..	Diseased
„ 6 Pigs	..	„	Ribs and loose pieces of Beef	..	Unsound
„ 4 „	..	Diseased	Bullock's Kidney and Fat	..	Diseased
Quantity of Pork loins	..	Unsound	2 Barrels of Apples	..	Unsound
Livers of 4 Bullocks	..	Diseased	Quantity of Bananas	..	„
Lungs of 3 „	..	„	„ Tomatoes	..	„
„ 4 Cows	..	„	„ Gooseberries	..	„
„ 7 Sheep	..	„			
„ 3 Pigs	..	„			
Livers of 2 „	..	„			
Hearts, Livers and Lungs of 10 Pigs	..	Unsound			
Box of Sheeps' Tongues	..	„			
„ „ Hearts	..	„			
Number of Ox „	..	„			
Cow's Tongue	..	Diseased			
Forequarters of Beef	..	Bruised			
Several pieces „	..	Unsound			
Legs and Flanks of Sheep	..	Bruised			
Quantity of Red Mullett	..	Unsound			
Barrels and loose quantities of Apples	..	„			
Quantity of Bananas	..	„			
„ Strawberries	..	„			
„ Tomatoes	..	„			
84 Tins of Salmon	..	„			
15 Packages of Eggs	..	„			
Milk (12 gall.)	..	Unwhole- some			
1 Rabbit	..	Bruised			
23 Pails (about 69 galls.)	..	Exposed to Small Pox Infection			
Ice Cream	..				
10000 Ice Pies and Wafers	..				
Sweets (11 lbs.)	..				

21 Justices' Orders have been obtained in connection with these articles.

		Tons.	Cwts.	Qrs.
APPROXIMATE WEIGHT SURRENDERED	..	1	.. 16	.. 0
„ „ SEIZED	..	1	.. 14	.. 2
Total		3	.. 10	.. 2



**TABLE F.**  
**Prosecutions.**

PREMISES.	NATURE OF OFFENCE.	PREMISES.
54, Snow Hill ..	Non-Compliance with Statutory Notice, re: Depositing trade refuse in Ashpit	Summons withdrawn, work having been done and defendant paying costs 4/6
1, Avenue Road ..	Non-Compliance with Statutory Notice, re: Defective soil pipe	Order made for work to be done forthwith. Defendant to pay costs 13/6
Cottages, Dunstall Road	Refusing to close a polluted well	Summons withdrawn on payment of costs 16/-
22, Wednesfield Rd.	Being in possession of diseased meat intended for food of man	Fined 20/- and Costs, £1/8/0
25, Bell Street ..	Non-Compliance with Statutory Notice, re: Walls and ceilings of house being foul	Summons withdrawn, work having been done, and defendant paying costs 4/6
36 to 40, Coleman Street. and 22 to 24, Hunter St.	Non-Compliance with Statutory Notice, re: Drainage of premises being insufficient and defective, ashpit being open and foul, and outpremises being foul	Ditto      Ditto      4/6
23, Hunter Street	Non-Compliance with Statutory Notice, re: Sink being improperly drained	Ditto      Ditto      4/6
104, Stafford Street	Exposing diseased meat for sale	Fined £3 and costs 7/- or one month's imprisonment
Do.      Do.	Slaughtering on unlicensed premises	Fined £1 and Costs 8/- or 14 days' imprisonment
13 to 18, Lawyer's Field	Non-Compliance with Statutory Notice, re: Guttering being defective, ashpits open and foul, and yard insufficiently drained	After being adjourned Summons withdrawn, work being completed and defendant paying Costs 4/6
1 to 4, Molineux St.	Non-Compliance with Statutory Notice, re: Sink being improperly drained, insufficient drainage to premises, guttering and down-spouting being defective, and closets and wash-houses being foul	After being adjourned Summons withdrawn, work being completed and defendant paying Costs 4/6





TABLE F. (continued).

## Prosecutions.

PREMISES.	NATURE OF OFFENCE.	RESULT.
78 to 99, Lower Stafford Street	Non-Compliance with Statutory Notices, re: Drainage being choked, premises being insufficiently drained, outbuildings being dilapidated and foul, yard paving being defective, ashpits being open and foul, and guttering and down-spouting being defective	After being adjourned Summons withdrawn, work being completed and defendant paying costs, 4/6
52, Moore Street ..	Non-Compliance with Statutory Notice, re: Guttering being defective	After being adjourned to enable repudiated ownership to be established, Summons withdrawn, work having been completed, defendant ordered to pay full costs, 19/6
29 to 33, Middle Vauxhall..	Non-Compliance with Statutory Notice, re: Drainage being defective and unventilated, Downspouting being defective, out-premises being foul, and premises being without proper ash accommodation	After being adjourned 7 days, Summons withdrawn on completion of work. Defendant paying costs, 6/-
31, do. do.	Non-Compliance with Statutory Notice, re: Interior walls and ceilings of living room and two bedrooms being foul	Do. do.
32, do. do.	Non-Compliance with Statutory Notice, re: Roof of house being defective	Do. do.
45 & 46, Salop St.	Non-Compliance with Statutory Notice, re: Drainage being defective and unventilated	Order made for the work to be done within 14 days. Defendant to pay costs, 10/6
Bell Street ..	Conveying Infectious Persons in Public Conveyance, and not properly disinfecting	Defendant fined 10/- and costs (£3 3s.)
16, Drayton Street	Non-Compliance with Statutory Notice, re: Interior Walls and Ceilings of House throughout being foul	After two adjournments Summonses withdrawn, work having been completed; defendant paying costs, 5/-
15 and 16, Drayton Street ..	Non-Compliance with Statutory Notice, re: Premises being without proper ash accommodation	After two adjournments Order made for work to be done; defendant to pay costs, 12/-

